AMERICAN AGRICULTURIST.

Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

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THE

AMERICAN AGRICULTURIST

AND

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REVIEW OF THE NOTES OF A FOREIGNER ON AMERICAN AGRICULTURE CONTINUED.

NOTWITHSTANDING the length to which this notice has been extended we hope it will not prove uninteresting to our readers. We could not give the article entire, on account of its great length; because, among its many good things, it contains so much crude and incorrect matter, that it should not be republished without correction. We do not accuse the writer of intentionally misrepresenting things; he is by far too honorable and high-minded a man for that; but it shows how difficult it is for a stranger to learn facts about a country where everything is so new and strange to him, and where he has so little opportunity during a mere flying visit to make himself acquainted with the minutiæ of matters concerning the people.

The following contains a due mixture of truth and error:—"It is worthy of remark, that the real American farmer is amazingly fond of change; he may be said to be always emigrating, never settling. However comfortable he may be, he is always contemplating the possibility of being off, sooner or later, to other 'diggins.' An offer of cash down will decide him at once; he will soon strike a bargain and be off. Often as they change, they are 'cute' enough to change always for the better. Americans are considered to be the best original settlers; they seem to have an aptitude for clearing land. On the other hand, they fail generally in improving lands; probably from the want of trying, or the requisite knowledge. English farmers make poor original settlers, but they almost invariably succeed in improving cleared or partially-cleared lands."

It is also worthy of remark that *some* American farmers are fond of change; but the idea conveyed is, that all are so, which is by no means the fact. Neither is it a fact that they are always "cute" enough to change for the better. In our estimation, one fourth, at least, of those who emigrate from the old states to the new ones, do so to their decided disadvantage, both in property, comfort, and health. That they make the best "original settlers," just as they do every original undertaking, is one of the self-evident facts to be seen all over the country. We are willing to grant the palm to English farmers for being the best improvers of land at home, but they do not invariably succeed in America, by a wide difference.

Roads and Plank Roads.—It is no wonder the writer was surprised at the "awful" condition of our roads. But what would he have thought if he had seen them at the worst? such as we have often seen in the new western and southwestern states, where they are not only almost impassable, but quite so for loaded teams. What he says of plank roads as being excellent contrivances, is not half what might have been said in their favor. "The roads leading from the farms to the villages, and even to the large towns, are very badly constructed; they are really, as a Scotchman gravely remarked to the writer, 'awful.' In summer, the quantity of dust is positively amazing; in winter, the mud is equally striking. In the 'fall' and 'spring' seasons; that is, at the beginning of the rainy seasons and the breaking up of the winter, they are sometimes almost impassable. A farmer informed us that, having occasion to go to a mill some two miles distant, it took him nearly three hours, and his horses were quite exhausted with their efforts. In districts sufficiently populous to pay for their construction, a species of road is laid down, called a 'plank road.' These roads are excellent contrivances, and facilitate the communication between farms and market towns very much. Although they are of comparatively recent introduction, immense tracts of country are laid with them. They are supported by tolls, those in the state of New York demanding six cents, (three pence,) for a single-horsed gig or buggy, for a run of eight or ten miles. The mode of laying them down is very simple, and may be briefly described: The line of road is marked out and levelled as much as possible. As they are generally laid down in the track of roads previously made, the centre is raised, leaving a hollow on each side, into which the water may run off from the planks through small holes or drains. A track little broader than the breadth of a coach or wagon, (if for a single line,) is marked out; and on each side of this, planks some eight or nine feet long, eight inches broad, and three thick, are laid parallel thereto. These are laid end to end, thus forming a double line of planks along the road. On the top of these side supports, the planks on which the carriages run, forming the roadway, are laid; these project a little beyond the side supports; they are generally some ten to fourteen inches broad, and two or three thick. The side of the embankment is brought up so as to cover the ends, and the road is complete."

To this we add, the planks are usually seven feet long and so laid that the ends form an uneven line to facilitate loaded wagon wheels rising when coming on the road, or in passing

others; and experience proves there is very little necessity of a double track.

The figuring up of western farming looks well on paper—the reality is hardly ever equal to the figures. These words are quoted from Mr. Ellsworth, in speaking about wasting manure on the Wabash lands: "I was surprised to find hundreds of loads carted at an expense of 12½ to 20 cents, and thrown into the river to get it out of the way."

That remark was made in 1846, when he first emigrated from the poor lands of Washington, and previously from the gravelly hills of Connecticut, where manure is the main stay of the farmer. In 1849, Mr. Ellsworth said to us, "I have got well cured of my Yankee notions of hauling manure four miles from town to put upon my prairie land—it won't pay. I have fallen into the common mode of hauling it to the river and sending it on a voyage to the Gulf of Mexico." That the time will come when all the now fertile lands of the west will pay for an application of manure cannot be doubted.

What will some of the log-cabin boys of the west think of this Englishman's knowledge of building the almost universal habitation of all new-country settlers. He says: "The first operation is cutting timber suitable for building. Having fixed on a site near a spring, for the house, the operation of building is begun. To build a log cabin is a very simple matter.

"Set posts in the ground, (if yellow pine is selected it will last for many years,) nine feet above the surface, in front, and seven in the rear. Stout poles or split logs, flattened at the ends, placed horizontally, and one upon the other, should be spiked or pinned to these posts all around; the upper ones in the front and rear laid on the top of the posts, in which a notch should be cut to receive them, taking care that they are sufficiently stout to bear the roof, which is to be formed of poles laid one end in the front and the other in the rear of the building. These poles should be covered with inverted sod, then earth, and sod again, surface uppermost. The openings between the side poles or logs must be filled up with clay, and a snug, weather-tight cabin is at once made. A comfortable floor may be made of lime, or clay and marl, taking care to have the ground on which the building stands a little rising. A chimney may be constructed in the usual way; that is, with logs and clay; or, if a stove is used, which is better, the pipe may go through the roof, giving the part which is exposed to the weather a coat of tar and sand, both inside and out."

Has anybody in America ever seen such a cabin as here described? If so, he has seen a sight that never dawned upon our vision in fifty thousand miles of travel in nearly all the states and Canada.

POULTRY RAISING.—No. 4.

In the October number of the Agriculturist, I remarked that the in-and-in breeding of any particular variety of the foreign breed of fowls, (now so highly extolled in some interested quarters,) where one would wish to keep them very extensively, would ultimately destroy the purity of the breed. Of the truth of this assertion, you seemed to have considerable doubt, and ask me to show my facts. Happily for my reputation as a truthful writer, you bring forward the proof yourselves, in the November number, p. 332, reading thus: "A portion of the fowls belonging to Constant Clapp, Esq., were formerly of the 'downy' breed, but this variety so strongly marked had run out and entirely disappeared for eight years." This being the result of in-and-in breeding, as the article states, it freely corroborates my statement. [The circumstance to which our correspondent here alludes, was doubtless caused by crossing the "downy" breed with some other varieties, and the re-appearance of the down was what is technically called "crying back." In breeding in-and-in, if due care is observed in selecting healthy, and perfectly-formed animals, with the males not too nearly related to the females, our word for it, this mode of breeding will not *very* "soon produce their ruin."—Eds.] I consider that such a result must inevitably occur where there is no opportunity to change a portion of the fowls at periods of from three to five years, for others of the same pure blood from other fowl yards.

Laying Ability of Fowls, etc.—In keeping fowls as a matter of profit, the principal desideratum is, to procure those that will produce the greatest number of eggs annually; at the same time, consuming a moderate quantity of food, and being easily fattened, and the flesh of good flavor. As I have before said, the newspaper accounts of particular cases of very productive laying, are not to be relied on as being what can be effected generally. All the various statements made in different parts of the country by persons keeping from 20 to 200 fowls of the average number of eggs laid by each fowl per annum, where sitting is not allowed, may

safely be laid down at about 80. It is not probable that any kind of fowls can be made to exceed this number as their general product. The devices resorted to in order to force fowls to lay in the winter season, by the means of artificial heat, in my opinion, are not productive of any benefit to the owner, in the end. You can but get your 80 eggs per annum, though you keep your fowls during the winter where the thermometer never falls below 60° or 70° F. What you gain in cold weather, you lose in warm. But, say you, "the eggs are much more valuable in winter." I doubt it; but you expend more than the difference in value in producing the necessary heat. Again, you subvert the order of nature. The sun was made to give light by day, the moon by night; the day is a period of labor, the night, one of rest; so in like manner, is there a season for fowls to lay, and a season of rest. If you force them to lay out of season, you weaken their producing powers, and when spring approaches, instead of the lively, cackling red-combed hen, you have one worn out and unproductive. Look, if you please, to the fowls of warmer climates. Do they produce more eggs than those of our own latitude? Not at all. And though the earth be covered with verdure and the trees clothed with a green, umbrageous foliage, yet the dunghill fowl rests in her productiveness as the colder months approach, and even there she produces no more eggs, in the aggregate, than at the north. I think that he who is not satisfied with the state of things which nature demands, is going beyond the province of man in thus seeking to bring forth what the God of nature never intended to be.

Not only should we look for such fowls as will insure the maximum average number of eggs, but the quantity of food that they will consume, must also be brought into account. It is often said by persons having a favorite variety of the large breed of fowls, that "they do not consume any more than the smaller breeds." This is said, I presume, without any intention to deceive, in many cases, and the error has been committed by not having been particular to ascertain positively the amount actually fed out. Sometimes the house slops furnish half enough to feed a couple of dozen of fowls which are not brought into the account at all. Again, some speak at random, "guessing" at the amount eaten. Where is the animate being of the quadruped kind, that does not eat in proportion to its size? How can it be expected that a fowl like an ostrich will consume no more food than one of ordinary size? It cannot be; and let interested men, who have fowls to sell, say what they please on this point, it is incontrovertible that large fowls will eat in proportion to their size. This being a fact, large breeds can never be so profitable as smaller ones, taking all things into consideration.

The mania now existing in some sections for fowls that can walk over a common five-foot fence at a single step, is one of the wildest and foolishest notions of the age. Nothing but the novelty of the thing has brought such fowls into notice. Probably in the very countries where these mammoth fowls are natives, our own native breeds would be hailed as a great acquisition. So much for the restless disposition of men for something *new*. I would here caution every one who feels an interest in fowl breeding, to beware of much that emanates from the vicinity of Boston, in praise of these mammoth breeds.

T. B. Miner.

Clinton, Oneida Co., N. Y

WHAT CAN I DO?

What one man can do towards arousing a spirit of improvement has lately been shown to a great extent in Norfolk county, Massachusetts. If Marshall P. Wilder had put the question to himself, and then sat down contented, that he could do nothing, at the time he first agitated the subject of forming the Norfolk-county Agricultural Society, it is not very likely that upwards of twelve hundred ladies and gentlemen would have sat down together, to enjoy the pleasures of a social dinner, as they did last fall, at their second aniversary.

What Can a Woman Do? is a question sometimes asked by the same class of do-nothing men, who put the first question. In that county, the farmers' wives and daughters have proved themselves capable of infusing such life and spirit into the mass, by the interest they have taken in the annual fairs, that they are now looked upon as the great anniversary holidays, and reunions of society.

Sensible Premiums.—Among other sensible things connected with this society, is the offer of liberal premiums for the best family-baked bread. At the last fair, there were sixty ladies with a hundred and seventy-five loaves, competing for the prize, or rather, prizes. Colonel Wilder gave two silver cups, and several other gentlemen gave three or four half barrels of flour, and twenty dollars in cash. Some of the bread offered was surpassingly excellent, while the other was just such bread as one half the

world are daily eating. Another premium is offered for the best-managed farm, for five years. Another for the best and exemplary young farmer. Another is talked of to be awarded to the mother who best fits her daughters to become farmers' wives.

Effects of Offers of Premiums for the Best Crop of Wheat.—In a county, where everybody said the power of the soil to produce wheat had been long exhausted, one farmer has produced 30 bushels and six quarts to the acre, of the Black-Sea variety. His process was to plant one year in corn, with manure spread and plowed in eight inches deep. For the wheat, he used a light compost, five cords to the acre, valued at $7.50, and eleven bushels of unleached ashes, valued at $1.37½. Total, $8.87½. The wheat was worth at home, $1.50 a bushel. Another person raised 29, a third 24, and another 19 bushels to the acre.

The secret of the great success of all of these gentlemen was deep plowing, thorough draining, and high manuring. Colonel Wilder very justly remarks, "it is just as easy to feed a crop of wheat, as it is to feed an ox; and with more certainty of producing a profitable result."

NEW-YORK MARKETS.—No. 1.

THOUSANDS of our readers have never visited this metropolis—perhaps have never seen a great city market place, where the daily food of many thousand human beings is exposed for sale. It used to be, in our youthful days, a great mystery to us, how so many persons as we were told, dwelt in places where the roads were all paved with stones, and the houses touched each other, could live without a pork barrel, potato cellar, pig pen, or hen roost, and where they not only bought their milk, but water, too.

The mystery is not yet quite cleared up in our minds, though we have no doubt now about the abundant supply of provisions; but how all, who eat, obtain their food, is another question. If we could draw truthful pictures of city life for farmers' sons and daughters to look at, it would teach them to love their own homes—they would contrast their plain, but wholesome, sweet and clean food, with some of the miserable stuff sold in our markets, and exclaim, "God made the country—man made the town"—let us be contented with His work.

With a view to add to that contentment, we propose to devote a few pages of the present volume, in giving some slight sketches of our market places—those great marts of things, clean and unclean, upon which human life is here sustained. It may be instructive and amusing to those who have not yet availed themselves of the cheap facilities of railroad travelling, to visit New York, to fancy themselves taking a stroll with us among hecatombs of oxen, mountains of mutton, pyramids of pork, and piles of poultry, in Fulton Market. Do not fancy you will see a palace nor a market house that is an ornament to the city, like those of some of the towns in Canada, nor like Quincy Market, at Boston. On the contrary, you will find it a common, dirty-looking, one-story building, with an arched roof, about two hundred feet square, three sides of which are elevated so as to form basement rooms underneath the floor that contains the butchers' stalls, which extend in a double line along two sides of the house, while the third is occupied by a scaly company, composed of all manner of fish that swim in the waters between Cape Cod and Cape Fear.

The central portion, which is on a level with the street, is also roofed over, paved, and is occupied with a mixed multitude of everything that is eatable, to say nothing of that portion which is not. Here you will see an uncounted and an uncountable quantity of barrels, boxes, baskets, tubs, and stacks of vegetables and fruit; and tons of poultry, eggs, butter, cheese, lard, and tallow, in all sorts of packages, except those in which neatness is particularly predominant. Upon one side of the square, is a row of dreary-looking cells, in which a large number of people are continually eating a great number of oysters, stewed, raw, and roasted. The quantity of this kind of food consumed in this city, if it could be correctly ascertained, would surpass belief.

Around the market house, upon the pavement, are the retailers of apples, nuts, cakes, and all sorts of trinkets and nick-nacks. Here sits an old woman knitting, by the side of the same table at which she has sat for many a long year. She not only sells the products of her own labor, but that of a great number of sets of knitting needles, busily plied around some country fires. A little further on, sits another and another, selling all manner of fruits in their season. What a listless life, to sit all day long in the same place, day after day and year after year, trafficking by the cent's worth with every person passing by, who desires to gratify his longing for the luscious fruit spread out to tempt his appetite. Here sits a woman week after week through the fall months, cracking hickory nuts unceasingly. All these market

women appear as though they were a portion of the human family set apart for that particular calling; and long usage in it has unfitted them for any other. Here is one, who has been known to the old residents, for at least forty years. She was one of the fixtures that was removed from the Old Fly Market, when the Fulton Market superseded it. Judging from her healthy and robust appearance, she may still sit in the same stall through summer heats and wintry blasts, for forty more long years—a fit emblem of patience on a monument not "smiling at grief," but still peddling potatoes.

But who comes here, rustling in silks and laces, with jewels glittering in the sun? She stops to talk with the old market woman; she is about to purchase something, more out of a charitable feeling, perhaps, than a want of the article. No, instead of giving, she is recieving money—a large sum too—what can it mean? "Thank you, mother." Is it possible? That word explains the whole. This is the lady's daughter in her silk-velvet mantilla, that the old market-woman mother in the same old-faded camlet cloak, sitting in the same old chair which she sat in before Miss was born.

Across the street, alongside the East River, is the wholesale fish and live-poultry market. We have seen sweeter and more pleasant places for a morning walk. In fact, the whole market is most notoriously free from all appearance of neatness, convenience, comfort, or adaptability to the purposes of a great mart of human food. Yet, what a motley crowd throng hither every morning for their daily provisions. Lessons of economy may be studied here advantageously. Here comes now a woman in a tattered shawl and weather-beaten bonnet, carefully counting her scanty stock of change, studying as she walks, how to expend it to the best advantage. Let us follow silently and observe whether her skill is equal to her necessity. First she buys a coarse-grained, worthless fish, because she can get a large one for a shilling. Her next purchase is half a peck of potatoes, at the rate of a *dollar and a half a bushel*—the dearest food in market, unless it is the half of a half peck of turnips, at half the price of potatoes, which she next buys. The large cabbage head, at ten cents, will do but little better. How much better, how much more economical it would have been for that poor woman, who has a large family to feed, if she had purchased a soup bone of beef, or a scrag of mutton, in place of the fish; and instead of the potatoes and turnips, the same value in dry beans, or some of that sweet-looking hommony, so temptingly spread out upon the next table to that where she bought the potatoes. Yes, and at a less price per bushel than those; but she knew nothing of the economy of buying one, instead of the other, and therefore followed the course that long habit taught her, when potatoes were cheap and corn dear. As we pass up Fulton street, you will be struck with surprise at the enormous piles of baskets and brooms, which pass daily through the ordeal of buying and selling in the immediate vicinity of Fulton Market.

At some future day, we will accompany you through Washington Market, where more farm produce is bought and sold in the course of the year, than in any other provision mart in America.

IMPORTS AND EXPORTS OF THE UNITED STATES.

We subjoin a list of the imports and domestic exports from the United States for the year ending June 30th, 1850:—

Products of the sea,			$2,824,818
do forest, including wood, timber, and its manufactures, pot and pearl ashes, furs, ginseng, pitch, &c.,			7,442,503
Products of Agriculture.			
Beef, tallow, hides, horned cattle,		$1,605,608	
Butter and cheese,		1,215,463	
Pork, bacon, lard, hogs,		7,550,287	
Horses and mules,		139,494	
Sheep,		15,753	
Wool,		22,778	
Wheat, bush.,	608,661	643,745	
Flour, bbls.,	1,385,443	7,098,570	
Indian corn, bush.,	6,595,092	3,892,193	
Indian meal, bbls.,	259,442	760,611	
Rye meal, bbls.,	69,903	216,076	
Rice, tierces,	127,069	2,631,557	
Rye, oats, and pulse,		121,191	
Ship bread,		334,123	
Potatoes,		99,333	
Apples,		24,974	
		26, 371,755	
Cotton, Sea-Island, lbs.,	8,236,460		
" Upland "	627,145,141	$71,984,616	
Leaf, tobacco, hhds.,	145,729	9,951,023	
All other agricultural products,		152,365	
		$82,088,004	108,459,760
Manufactured Articles.			
Cottons, printed and colored,		$606,631	
" uncolored,		3,774,407	
All other manufactures of,		353,386	
		$4,734,424	
Iron, pig, bar and nails,		154,210	
" castings,		79,318	
All manufactures of,		1,677,792	
		$1,911,320	6,645,740
All other manufactured articles,			8,498,640
Coal, tons,	38,740	$167,090	
Salt, bush.,	319,175	75,103	
Ice,		107,018	
			349,211
Raw produce not specified,			679,556

The exports for the year previous, amounted to $132,666,955.

Foreign exports for the same period.

Specie—gold,	$2,511,786
Silver,	2,962,367
Tea, 1,662,399 pounds, valued,	733,757
Coffee, 15,287,479 "	1,299,546

Sugar, brown, 12,186,113 lbs.,		476,905
" white, 1,680,874 "		111,202
" loaf, 286,078 "		17,223
Iron—Sheet iron, 90,129 lbs.,		3,120
Pig iron, 6,450 cwt.,		5,679
Bar, rolled, 9,835, "		15,130
Manufactured otherwise, 3,657, cwt.,		13,676
Coal, 6,480 tons,		13,776
Brandy, 66,443 gallons,		59,550
Spirits from grain, 32,282 gallons,		15,177
" other materials 180,288 gallons,		26,306
Cordials, 638 gallons,		1,068
Salt, 31,046 bushels,		9,668
Total of exports, $151,898,720.		

Imports for the same period.

The following table exhibits the imports for the fiscal year, ending June 30th, 1850.

Iron and steel—muskets and rifles, value,		$27,424
Other fire arms,		354,877
Side arms,		1,542
Drawing and cutting knives,		10,808
Hatchets,		2,477
Chisels,		9,914
Steelyards and scale beams,		6,584
Vices,		20,088
Sickles,		1,082
Scythes,		14,358
Screws,		161
Spades and shovels,		8,120
Squares,		2,091
Needles,		231,325
Cast-iron bolt hinges,		20,998
Cutlery,		4,284,838
Other merchandise of iron,		3,427,180
Irons,		736
Bonnet wire,		3,714
Iron and steel wire,		78,055
Nails, 2,656, 786 lbs.,		119,786
Spikes, 51,311 lbs.,		2,066
Chain cables,		599,811
Saws,		7,942
Anchors,		43,028
Anvils,		76,822
Hammers and sledges,		6,000
Castings,		83,882
Round and square iron,		54,874
Nail and spike rods,		10,058
Band and scroll iron,		31,847
Hoop iron,		176,938
Sheet iron,		659,058
Pig iron, 1,497,487 cwt.,		385,870
Old and scrap, 202,090 "		161,981
Bar, rolled, 4,959,022 "		7,397,165
Bar otherwise, 294,132 "		744,735
Cast steel, 101,876 "		1,106,800
Other steel, 25,641 "		225,362
Lead—Pig, bar, sheet and old, 35,997,084 lbs.,		1,182,597
Bullion—Gold,	$9,257,240	9,283,556
Silver,	$26,316	
Specie—Gold,	1,600,722	4,426,542
Silver,	2,825,820	
Teas—28,752,817 lbs.,		4,588,373
Coffee—144,986,895 "		11,215,076
Guano—3,940 tons,		91,948
Woolens—Cloths and Cassimeres,		6,184,190
Merino shawls,		935,348
Blankets,		1,244,335
Worsted stuffs,		5,004,250
Hosiery,		718,135
Other articles not specified,		1,880,526
Cottons—Printed, &c.,		13,640,291
White, &c.,		1,773,302
Tambored,		1,267,226
Hosiery,		1,558,173
Yarn and thread,		799,156
Unspecified,		858,422
Silks—Piece goods,		14,459,560
Hosiery,		616,217
Tambored, &c.,		1,131,462
Unspecified,		872,380
Silk and worsted,		1,653,809
Flax—Linens,	$7,063,184	8,095,022
Unspecified,	1,031,838	
Spirits—Brandy, 4,145,802 galls.,		2,659,537
From grain, 751,183 "		361,073
Other materials, 339,169 "		113,779
Cordials, 28,897 "		32,447
Sugar—Brown, 197,651,819 lbs.,		6,659,543
White, 19,977,312 "		846,939
Loaf, 796,217 "		48,664
Salt—11,224,185 bushels,		1,237,186
Coal—180,439 tons,		378,817
Total value of imports for the year ending June 30th, 1850,		$187,217,574

It will be seen by the foregoing, that we are at the same game we played in 1835 and '36. Our imports have exceeded our exports by the snug little sum of $30,000,000 in a single year, and after all due allowance for profits accruing to our commercial interests, from exchange freights, &c., the result of our last year's financial operations will leave us a debt of over $20,000,000, which we have temporarily provided for by sales of stocks of every hue and description. We trust our countrymen will come to their senses in time, and check this most inordinate importation before it is too late.

Look at the enormous quantity of silk imported, about $19,000,000; cottons, $19,000,000 more; woolens, about $16,000,000; linens, over $8,000,000; brandy, 4,000,000 gallons; bar iron, over $8,000,000; and this, too, while more than half the furnaces and forges in this country are lying still, and many of our cotton and woolen mills are idle for want of adequate protection from the pauper labor of Europe.

What an immense difference would result were all these articles made at home, and our beef, butter, grain, &c., consumed by our own manufacturers; and while our farmers were obtaining larger prices for their products, by the increasing home consumption thus secured, the competition in agricultural products would be lessened by the large quantity of labor withdrawn from their over production.

CULTIVATION OF CRANBERRIES.

From the Barnstable Patriot, we copy the subjoined statement from the Report of the Committee on Fruit, of the Barnstable-County Agricultural Society:—

The following is a statement of the course pursued by me in the cultivation of the cranberry. July 12th, 1845, I purchased for $40, one and a half acres of land—about one half a sandy beach, and the remainder a low peat meadow covered with water. A rim of about six feet in width around the bog and between the water and the beach, had a few cranberry vines on it, which had been closely fed off. In the spring of 1846, I drained the bog and covered about one eighth of an acre with sand three inches thick, and set it with cranberry vines in rows two feet apart, and hoed them four times in the season of 1846, and once in the spring of 1847. The grass then got advantage of me, and I left the vines to work their own way. They have now nearly overcome and worked out the grass and rushes. On the remainder of the bog, I strewed vines, and trod them into the mud, by walking over them. These

grew without any further care except flowing in the winter. In the fall of 1848, I gathered from ten rods, where no sand had been spread, as many bushels of cranberries, while on the part sanded I had as many quarts. The latter are now doing better, having got the advantage of the grass, and I think will finally work it out. I have this year, on the quarter of an acre offered for premium, quite a good crop, although the worms destroyed nearly one half. I have picked one square rod of the light-colored variety, set in mud, and it yielded two bushels and twelve quarts. The large red variety yielded on the mud two bushels to the square rod. The whole quarter is not yet gathered; it will yield about thirty-five bushels, about one half of the vines being set on mud and one half on sand.

In selecting meadow for cranberries, it is highly necessary to select such as will not dry in summer; but much also depends on the selection of the vines, as the committee will see by the samples here presented, all having the same soil and the same treatment. The samples are not selected, but sent in precisely as they grew. The whole expense on the above bog, up to the present time, does not exceed $40.

I have received from the sales of cranberries, up to the fall of 1845, $320

Deduct for picking, one fourth,	$80	
All other expenses for setting, interest, &c.,	40	
	——	120
Net profits,		$200

EDWARD THACHER.

Yarmouth Port, October 15th, 1850.

VILLAGE LECTURES.—No. 5.

Now, I must not forget that I ought to be referring more espicially to the fact that all people and all living animals are loading the air with the poisonous gas which comes up through the windpipe chimney, from the furnaces burning inside them. But let us still further digress for one minute, just to point out the fact which thus appears, that a large portion of the food an animal eats, is in reality wasted—spent as fuel—burned up within it, just to maintain its bodily heat. And the farmer might take a hint from that; of course, if his feeding cattle or sheep are exposed to cold and rain, they will need burn more fuel to keep the heat of life within them. Keep them warm artificially, and less of the turnip and hay which they eat will be burned up within them; keep them quiet in stalls or boxes, instead of in yards or fields, where they can run about, and the bellows will not work so actively, and the fire will not burn so fiercely in their lungs, and less of the food will be spent in the mere act of burning as fuel—more will be available for the purpose for which food is given; that is, for the formation of fat and the promotion of growth. It is not unfrequently the case that a lot of sheep, folded out in cold weather on the turnip field, gain no flesh at all. The fact is, every bit of food that is eaten by them is burned up within them just to preserve animal heat, and the farmer might just as well have thrown it all into the fire at once; but house those sheep, or feed them in sheltered yards, where they lose heat less rapidly, they will not need so much fuel to keep themselves comfortable, and some of their food will form flesh.

Now let us return to the fact that the air is being poisoned by all this breathing and fire-burning. You will find that a very little breathing through some lime water will make it muddy enough, proving how much more carbonic acid, and how much less oxygen, there is in the air that is breathed out, than in the air that is breathed in. The fact is, the air we breathe out contains 100 times more carbonic acid than the air we breathe in. A man, by the union of the air he breathes in with the carbon of his food in his lungs, throws out in his breath in this way, in the course of a year, about 1¼ cwt. of charcoal, as much, perhaps, as there is in a sack of coals. Indeed, the quantity of carbon or charcoal thus added to the air every year by the breath of all the animals, human or otherwise, in Great Britain, is estimated at 2,000,000 tons' weight.

Well then, the air would very soon become unfit for man and other animals to live in, were it not for the beautiful arrangement of carbonic acid gas, being sent into the air, that plants remove it. As fast as charcoal in fires and candles and in food is uniting with the health-giving oxygen of the air, and forming the deadly gas, the plants are decomposing its carbonic acid, and taking the charcoal forming their own selves out of it, and giving back the health-giving oxygen pure to the air again; so that thus, the air is maintained fit for use. It is only in the daylight, or sunshine, that plants have this power, however, and you know that if you want to blanch a plant, a rhubarb plant for instance; that is, hinder it from becoming woody, or hinder it from decomposing the carbonic acid of the air, and so obtaining charcoal to form wood, all that you have to do is to keep it from the light.

And again, if wheat is too thick and luxuriant in spring time, so as to hinder the light from getting in upon its stems, those stems will be unable to decompose the carbonic acid of the air; they will be unable to procure charcoal to make them hard and woody; they will be white and succulent, without strength, and liable to be laid by the rain; but mow those top leaves off, or let a lot of sheep bite them off, and you let the light in upon those stems, and they will regain the power they have lost, and they will strengthen and harden in consequence of again being able to procure their woody substance from the air. But that they can decompose the carbonic acid of the air, and, retaining its charcoal, give off the pure healthy oxygen, can be proved. I have taken a number of cabbages, one after another, on successive days, cutting them about mid day, when they might be supposed to be full of the gas, if ever they took any at all, and exposed them under water to the sun. Very soon, bubbles of gas collected in the top of the glass, and on examination it was proved, by their ability to burn things brilliantly, that they were pure oxygen. Those cabbages had been collecting the deadly gas as I and you were breathing it out, and as every chimney over a fire was sending it into the air, and they were decomposing it and sending the healthful part of it back to the air and keeping the charcoal to themselves. See, then, how important the air is to plants, as well as to us; it provides them with all the woody part of their substance; it provides us with the breath we live upon, and the fires that warm us. See how important the process of combustion, whether slow as in the case of ordinary decomposition, or more rapid as in the case of respiration and ordinary burning, is to plants. Unless, in this manner, the air was continually supplied with this poisonous gas, plants might exhaust it of all the materials on which they feed and live. See how important plants are to us; they keep the air healthy for us, deprive it of those noxious gases which would otherwise soon collect and destroy us, forming their own substance at the expense of our enemy; so that the very thing which would destroy us is made to provide us with food and with fuel through their means. See, too, how admirably the growth of evil, in the natural as well as in the moral world, is checked and made productive of good in the end, by the overruling hand of God's Providence.

Thus much, then, we have learned regarding the air in connection with agriculture; it provides the plant with its woody substance; it keeps up the warmth of the living animal by burning a portion of its food in its lungs.—*Ag. Gaz*

LARGE WHEELS ON ROUGH ROADS.

THE advantages of large wheels on rough roads are strikingly exemplified in the *quitrin* and *volante*, vehicles in common use in Havana and other parts of the island of Cuba.

QUITRIN.—FIG. 14.

The wheels are some ten feet in diameter, and to the axletrees, elastic tongues, or shafts, some 15 or 20 feet in length, are attatched, and over the axles, a top or covered body, is mounted, resembling the top of our New-England chaise. From the rough state of the roads on the island, these vehicles have been used for a great number of years, for which they serve an admirable purpose. By the large size of the wheels, an increased leverage is obtained, and they more readily overcome the obstructions they meet with in the form of gulleys, stumps, and stones. From the great length, also, of the shafts, they are quite elastic, and impart an easy motion to the carriage on level roads as well as those that are rough.

DISCOVERY OF AN IMMENSE VEIN OF PHOSPHATE OF LIME.

THIS locality of phosphate of lime, I discovered, at Crown Point, in 1847, and published an account of it in my report, under the name of *eupyrchroite*, regarding it as a new kind of mineral. Since that time, I have also made reference to this mineral, and particularly in the agricultural journal which I conducted at one time; and I often expressed the wish that some one would open the vein and determine its value and extent. But no one seemed to regard it in a favorable light. I was instrumental, last fall, in opening this mine. It turns out to be a solid vein of phosphate of lime, eight feet thick, at least, and has been traced a long distance from northwest to southeast. It is known to contain 92 per cent. of phosphate of lime, with fluorine and chlorine, iron, or a sulphuret of iron and copper, in small proportions, furnishing

thereby, phosphoric acid for bones, muscles, and organs of the body, fluoric acid for the formation of the teeth, sulphur for the protein compounds—and if you add the alkali, we may easily prepare a compound suitable to meet the wants of animals and vegetables, so far as inorganic matter is concerned. It is an important discovery for agriculture, as it gives us a source for this expensive fertiliser, phosphoric acid, a substance which enters into the composition of all living things, and is second in importance to oxygen, only.

This phosphate may be furnished to a great extent, though I may not say that it is inexhaustible, yet, it will last a long time. I would obligate myself to furnish 100,000 tons. For Long-Island farmers and for the south, it may be made to take the place of guano and bone dust. It must be used as a super-phosphate, although the simple use as plaster, would supply the waste of fields of the phosphates; yet, it would be dissolved slowly in its present state. In the long run, it would benefit lands equally well; yet, people now-a-days like to feel and see the immediate effects of the labor of their hands.

In addition to the vein of phosphate of lime, there is a trap dyke beside it, which contains, also, 40 to 50 per cent. of the phosphates. I have engaged Professor Norton to make a critical examination of the substances connected with these veins. I have made only one experiment with the phosphate. I find that, for wheat, on a sandy soil, it works admirably; it produces a dark-green, stout blade, and bears the absence of rain much better than when the ordinary fertilisers are employed.

In a geological point of view, this locality of phosphorite, is exceedingly interesting, and I think it will lead to other discoveries of the same kind; and I think, too, that it will be found that many of our trap dykes and igneous rocks abound in this mineral, and that this will explain the fact, that soils derived from them are often very fertile, and produce excellent grass. The condition of the Crown-Point phosphorite is the same as that which is contained in the soil. Carbonic acid is the solvent in nature. Those, who are engaged in the manufacture of artificial fertilisers, will find it a valuable addition to their compounds. E. Emmons.

Albany, Jan. 12th, 1851.

Teach Children to love everything that is beautiful and you will teach them to be useful and good.

CULTIVATING AND EMBELLISHING RAILROAD EMBANKMENTS AND GROUNDS.

The following sensible article from the North-British Agriculturist is particularly applicable to this country, not only as regards railroads, but all other thoroughfares. These remarks of Mr. Copperfield, however, apply only to the railroads of Scotland. In England, they are generally beautifully turfed, cultivated, or planted with trees:—

Those who are in the habit of passing along the various railways which now intersect the country in all directions, cannot fail to have observed the immense space of ground on either side of them, lying in a useless state, producing nothing but plentiful crops of weeds, which ripen their seed in perfection, and which is scattered over the neighboring fields by every gust of wind, to the great annoyance of the farmer and others, who hold land in close proximity to them. It appears strange that in these speculative times, no one has ventured to suggest any scheme, whereby the railway embankments may be turned to profitable account. It is only here and there we find small patches laid down in grass, for the purpose of making it into hay, which, after all, is but a scanty crop. And it is not only the embankments themselves, but considerable breadths of ground, that have been taken by the railway companies, which might be rendered useful, instead of as now, supplying the whole country side with what it can very well dispense with weeds. Perhaps some of our correspondents, who have more experience in such matters than I can boast of, may suggest some plan for turning such waste ground into profitable account, that can be carried into effect.

David Copperfield, Sen.

[By calculation, it has been estimated that every mile in length of railway occupies eight imperial acres of land, the loss of which to the community, is, no doubt, far more than compensated for, by the vast advantages afforded by them, both to the agriculturist and commercialist; yet there is little doubt but that many hundred acres of their sloping banks might be profitably cultivated. The first step, however, in the improvement of railway banks, should commence in the decoration of the grounds immediately in connection with the various stations; for, strange to say, although thousands of pounds have been next to thrown away in the erection of almost palaces, small attention has been paid to the dressing of the ground

around them. The Edinburgh and Northern, the Edinburgh and Glasgow, and the Caledonia lines are conspicuous for want of taste in this respect, while innumerable instances occur, on the southern lines, of improvement both in style and keeping; and singular enough, the nearer we approach the great metropolis, the more highly kept are the grounds around them, and the greater the amount of good taste is displayed. The best specimen of well-kept grounds around a railway station, we have observed in Scotland, is that at Portobello, which may be taken as a model, although less favored in point of situation than many others.

Our friend, Mr. Copperfield, should have known that various plans have been suggested for turning into profitable account these immense spaces, now, as he very justly observes producing only crops of weeds, seeds that can well be dispensed with. Sowing down the banks with grass seed is not with a view to profit by the hay made, but to establish a surface less likely to be run down by rains. Planting them with trees, would, we think, be the most profitable; but then, while such reckless carelessness is allowed to go on, on the part of the enginemen and stokers, and for want of securing the sparks of fire from the chimney tops, which could easily be provided against, we might expect to see a railway conflagration which might not only burn down the trees on the embakment, but set fire to a whole country side. Were fire guarded against, there can be no doubt but a judicious selection of trees and shrubs would not only make in time a good return to the proprietors, but would render the monotony of weedy and unprofitable surfaces extending for miles, less painful to the eye of taste, and more cheering to those of travellers, in general. Tall-growing trees have been very properly objected to, as in the event of storms blowing them over, the thoroughfare might be impeded; but the same objection could not be made to fruit trees trained up the inclines, or plantations of gooseberries, currants, strawberries, &c. But these and every other mode of turning these slopes to profitable account would be liable to injury from fire. Much, however, might be done by ornamental planting around the stations, and the introduction of flowering shrubs and plants.—HORT. ED.]

FARMERS' BOYS should be taught never to say "*I can't do it*, for that never did anything. "*I'll try*," has worked wonders; and "*I will do it*," has performed miracles.

A JAUNT IN OHIO.—No. 2.

I WAS disappointed in my first impression of Cincinnati. I had supposed it to be chiefly built on a broad table above the first or lower bottom of the river, with the hills at some distance in the rear of the town, as doubtless such a site would have been selected, had its founders dreamed of the future extent of their infant city. Instead of such, the town is built on a narrow belt of land, shut in by high hills, which are intersected by two small streams—Deer and Mill Creeks—and a few ravines, up the valleys of which the city follows the great thoroughfares to the back country, and has for many years, also, been cutting into the high hills which stand in the way of its progress, or in other parts has climbed up their precipitous sides in most inconvenient, although not unpicturesque proximity, to their more humble and accessible neighbors. The town is, in the main, regularly laid out, so far as the intersection of streets and avenues are concerned, which are of good width, and most of them well graded and paved; but the strange intermixture of manufactories of all sorts—the smokes, and noises and hammerings, and stenches, rising up in the midst of stores and shops, and dwellings, and covering everything with coal dust and soot, certainly makes a queer mixture of occupation and residence. Here are streets of fine dwellings, spacious, rich, and costly, built of the best of bricks, and a most beautiful drab-colored free stone, which is quarried somewhere up the river—and a more beautiful building material I never saw. Magnificent and extensive stores, warehouses, churches, banks, and hotels, among which is the Burnet House, probably the finest in its architecture and arrangements, in America, various public institutions, belonging to sundry societies and corporations, churches, market houses, all mixed in, cheek-by-jowl, with tall, smoky chimneys, and workshops, with their clacking hammers and artificers of every description, all driven by steam, and fed and warmed by bituminous coal, give it an appearance and character unique altogether.

Then there is the deep, horse-pond-looking river, lying low down between red shelving banks; then at its lowest stages, but rising, I was told, in its highest floods, 60 feet above, and up into the stores of the lower streets, filled with three-story steamboats, flatboats, rafts, and barges, with whole coveys of coal cribs lying moored along the shores and quay, taking in and discharging passengers and cargoes, or waiting for a rise of water to go up or down,

as the case may be; with the two towns of Covington and Newport, on the opposite shore, the deep, sluggish, narrow Licking, of Kentucky, between them, and these filled with smokes, and frurnaces, also, all gave a character, Pittsburgh excepted, anomalous, almost, in America; yet, in its evidences of thrift and industry, highly gratifying to one who enjoys a scene of activity and bustle.

Taking any of the thoroughfares leading out of Cincinnati, after passing the gorges of the hills—which, in the progress of their cutting down and filling up the intervening hollows, present a most raw, jagged appearance—a beautiful, high, and undulating country is presented, on occasional portions of which still remain fine groves of the grand old beech forests of original growth, and dotted with fine houses, surrounded with well-cultivated gardens, grounds, vineyards, and orchards, many of them the abodes of business men in the town, or retired citizens. Here, too, are numerous market gardens, nurseries, green and hothouses, dairies, and various other establishments that minister to the wealth and luxury, and enjoyment, both of the suburban residents, and the people of the city. Many of these, I visited and received the attentions and hospitalities of their proprietors and occupants, and examined the nice cultivation of their gardens, fruits, and flowers, in the propogation of which, they show much taste and discrimination. Almost every one who has a garden, has also a vineyard, more or less extensive, of the Catawba grape—the grape *par excellent* of this region, both for wine and the table. There are several hundred acres of vineyards about Cincinnati, from which many thousands of gallons of wine are annually produced; and the best Hock, and Champagnes of the hotels are the production of the neighborhood. The founder of vineyards here is the veteran Mr. Longworth, whose wealth and enterprise have proved equal to surmount all difficulties in their growth, and the manufacture of the fruit into wines to an entirely successful result, so that wine is henceforth to be one of the staples of the Ohio Valley. So general, indeed, has the production of the Catawba grape become, that it is now, in its season, carried by the wagon load into the Cincinnati markets, as common as either potatoes or cabbages, and by its cheapness and abundance, is largely consumed by all classes of people. The Isabella grape does not thrive so well here as at New York; either the climate or soil not being so congenial to it as the Catawba. I should remark that the soil of these hills and valleys is a calcareous, clayey loam, intermixed with and based on limestone, which abounds in the hills a few feet below the surface, and frequently cropping out on their sides, furnishing any quantity for building materials and lime. The vineyards on the steepest hills are cultivated in terraces five to ten feet wide, with a step bank to the next terrace, of two to three feet high, the vines set four to five feet apart, with usually two vines to a hill, and trained to stakes about six feet high. Five to a dozen bunches were the products of each hill, according to age and cultivation, then in full ripeness for the vintage which was to commence the coming week. Mr. Longworth has about 150 acres in vineyards, cultivated by tenants, chiefly Germans. This gentleman has introduced and cultivated other varieties of grapes than the Catawba, from which, particularly the Herbemont, excellent wines have been produced; but the Catawba, so far, has proved the surest and most profitable of them all. Such kinds will unquestionably be cultivated, and probably hereafter make equally valuable and varied qualities of wine.

The chief autumn show of the Horticultural Society was held the week that I spent in Cincinnati, and well proved the attention and skill which is displayed in that department. In the luxuriance of fruit, flowers, and vegetables, I never saw this exhibition excelled; and in the constant attendance of the proprietors and producers of these fruits and flowers, and vegetables, during the exhibition, and their delight in the display, so different from the affectation of our would-be "merchant princes and savans" of the eastern cities, who, with few exceptions, usually exhibit through their gardeners, and in their readiness to communicate all their experience and knowledge in production, I was delighted. The fruits are large, larger than in our more northern latitudes, particularly the apples and peaches, and their size, I think, is attained somewhat at the expense of flavor; yet they are very showy, and in most instances fine. The yellow bellflower, a noble fruit, even in New York, is here in still greater perfection. Many other varieties of apples are also cultivated, some introduced from our eastern orchards, others indigenous to the soil, delicious and beautiful.

I had long heard of the superiority of the Cincinnati markets. They struck me as not so. They are full, abundant, and cheap, but not superior in quality to those of New York and Philadelphia. The sweet potato of Ohio, though plenty and of enormous size, is clammy and

far inferior in flavor to the same vegetable from Virginia, or even Delaware, or New Jersey. Other vegetables are of like kinds as with us. Meats are but on the average; and although poultry and eggs are cheap, abundant, and good, they show no superiority in quality, to ours.

There is much that is both excellent and superior in the natural production about Cincinnati. The soil is rich, the climate mild and salubrious; and an abounding supply of all edible things for the thronging population within and around it. Though neither grand in position, nor picturesque in scenery, or where grandeur and magnificence are distinguishing features in the landscape, can it compare with many of the cities of our land; yet it has many pleasant surroundings, and is among the most useful of our American towns; and in the intelligence, the public spirit, the untiring industry, the urbanity and kindness of her people, and in the pursuit of the great and essential objects which benefit their race and promote the common prosperity of the state, there is no place of its population which takes rank with Cincinnati.

A VISITOR.

AGRICULTURAL GEOLOGY.—No. 6.

CLAY soils, from their peculiar nature, perhaps, always retain a certain amount of ammonia diffused throughout them. There are very few of them that have undergone tillage from which ammonia, as a gas, cannot be obtained in small quantity. This useful element may have been derived from two sources; either from the decomposition of vegetable roots in the earth whereby carbonic acid and ammonia are evolved, or from the absorption of atmospheric air into the soil, the renewal of its oxygen, and the residual nitrogen united with some hydrogen escaping from decomposed mould. This, although a small source, is in all likelihood, a constant one, and when it occurs in clay soils, the alumina acting as a sponge in its moist state, absorbs the gas into its pores, and retains it for a time. This ammonia escapes on drying the soil by a gentle heat, and unless looked for carefully is often not estimated as being present.

The majority of these chemical properties, which a clay soil manifests, such as its tendency to absorb moisture carbonic acid, ammonia, and its affinity for potash, are exhibited with the exception of the last, only when it is moderately moist. When excessively wet, its absorption power, of course, ceases; and when it is dry, the changes cannot go on; that is, neither air nor vegetable matter can be decomposed. This is a peculiarity of clayey soils which cannot well be remedied. No mixing with sand, or gravel, nor lightening its physical texture will accomplish it.

In clayey soils, then, there are periods when they are overactive in producing chemical changes, such as evolution of oxygen, the formation of ammonia and carbonic acid; and in a few cases, the formation of nitric acid; and there are, also, periods of no action, as in time of drought. This may be one cause, quite independent of its physical texture, why clayey soils are favorable to the growth of some plants and not others. It cannot be the mere tendency to retain moisture which would cause this difference. It possibly may be attributable to the impatience of the presence of a large quantity of oxygen which injures the roots.

There is one very striking peculiarity in the soils derived from slate rocks, as well as in the soils overlying slate districts, namely, the very small quantity of lime which exists in these soils. In the analyses of slate soils, made in the Labratory of the American Agricultural Association, the minute proportion of lime present is remarkable; nor is this true of slate merely, but it has been observed as true with regard to the slate soils of the United States, generally, when contrasted with those of Europe. In Great Britain, there are few soils to which lime has not been added for many years, that still 1 or 2 per cent. may not exist, and 4 or 5 per cent. of carbonate of lime is often found in stiff clay soils. What may have been the cause of this difference in the presence of lime in American drift and slate soils, compared with those of Europe, it is almost out of place here to speculate upon. The soils being derived from the slate rock, the first question arises, Does the slate rock differ on the two continents? The answer here is also given in the affirmative. It must be due, then, to some causes operating over the American hemisphere at the time those rocks were deposited, whereby lime did not become an element entering into their composition. Some difference existed either in the depth of ocean which then overlaid this continent, or a different race of animals existed in these waters which did not separate the lime from the sea water to form a bony shell, or probably both these causes existed together. In other words, the seas, which covered the present slate districts, were too deep to allow of coral-forming animals to exist, and unfitted for their numerous univalve and bivalve mollusca, which form a calcareous coat to exist in. This is the usual

way, (the calcareous coating of animals,) in which lime exists in the secondary rocks. It is rare that it forms a reef by having been deposited in comparatively shallow water as a mud, carried down by streams, and depositing itself in a coat over the bottom of the sea. Some of the slate rocks of this state contain the lime in this condition, localised however, very much; that is, between the beds of true slate, at intervals of 100 to 200 feet, a bed of pure limestone mud is found, sometimes with shell remains, at other times without, varying from 10 to 25 feet, occasionally not more than 30 inches thick. The hydraulic limestone of this state is of this character, termed in the survey of the state, the "Manlius water limestone," an analysis of which made in the Laboratory of the American Agricultural Association afforded in 100 parts

Silicates of alumina and iron insoluble in acid,	63.0
Silica soluble in acid,	4.0
Alumina,	4.5
Peroxide of iron,	0.5
Carbonate of lime,	15.0
Magnesia,	11.0
Oxide and sulphuret of manganese,	2.0
	100.0

What has been termed the "Tully limestone," a thin seam of pure workable stone, fit for building and burning, which lies between the beds of slate, and stretches through Ontario, Yates, Seneca, Cayuga, and the other counties in a line eastward towards the Hudson, is also a bed of limestone mud, containing, however, a few shell fossils peculiar to it; two samples of which, taken 15 miles apart, analysed in the laboratory, yielded in 100 parts

	No. 1	No. 2
Insoluble silicates of alumina and iron,	15.0	4.0
Alumina and peroxide of iron,	23.0	26.0
Carbonate of lime,	53.5	60.0
Magnesia,	2.8	5.5
Manganese,	—	1.0
Soluble salts as cloride of sodium, and sulphate of lime,	1.2	2.4
Potash with traces of phosphoric acid,	trac's	1.0
	100.0	100.0

In all of these may be perceived the large amount of clay and iron, which accompanies the carbonate of lime, as well as the proportion of insoluble silicates; all these being in very minute grains in the rock, showing the fine condition of muddy sand, of which it had been composed. It contains more than one half its total weight of carbonate of lime, and when burned without too violent a heat, affords good lime.

Whatever may be the true cause of this absence of lime in the soil, of the fact there is no doubt, and its effect upon the growth of plants deserves our special consideration, which we shall take up in our next communication.

GEORGIA BURR MILLSTONES.

Although this kind of stone has been known and used for a hundred years, it is like the discovery of the action of the water ram, or the well-known fertilising qualities of guano, which, though known for an equal length of time, required the spirit that actuates the present age to bring it into general use. I had often heard of it, and sometimes heard it spoken of approvingly, and at other times with doubt, and often as of little value, and for the reason it was but little known or used. Stones made of French burr blocks were brought into the state in the almost immediate vicinity of the quarry, and millers contended, and still contend, that no other material exists that is suitable for millstones, except that of France.

While at Savannah the other day, I sought the opportunity of examining this Georgia product, at the store of Messrs. Hoyt, agents of an association recently formed, called the "Lafayette Burr-Millstone Manufacturing Company," who now have some 20 or 30 hands employed, and will soon increase the number to meet the demand. The quarry is 100 miles from Savannah, and six miles from the Macon Railroad, upon the plantation of P. B. Connelly, extending over a tract of about 1,700 acres, near the line of Jefferson and Burke counties. Previous to the time the present proprietors commenced, in 1849, about a thousand pair of millstones had been made, and although many of them in a rough manner, and the blocks not so carefully selected as at present, yet, not one has ever been known to be discarded, and generally they have been highly approved. Still, as the opinion has prevailed that nothing but French burr would make good wheat flour, this invaluable quarry has laid almost idle and worthless up to the past year or two. The quantity is inexhaustible. It is generally near the surface, but the ground is considerably broken by creeks and ravines, and the veins of grit are from six to twenty feet thick. There are excellent sites for mills, where the power of water might be used for shaping the blocks, with machinery lately invented for cutting stone.

The face of the blocks, when dressed, shows a surface quite as open as French burr, free from all loose pebbles, sand, iron nodules, and veins. In fact, the cavities when examined with

a powerful magnifying glass, appear as though they were coated with an enamel of pure quartz, and present an immense number of fine, sharp-cutting edges. Years of exposure to the atmosphere present no appearance of change, and I am assured that the blocks stand fire perfectly, and that there is no difficulty in selecting them so as to form the whole stone of exactly the same quality and of equal goodness throughout the whole thickness.

The present price of millstones is about the same as French burr, but the great abundance of material and the constant increasing demand, will enable the company to supply stones or blocks at a price so much below those imported, that every American farmer has a direct interest in this American quarry. So far as my own opinion is worth in promotion of this new branch of home production, I give it most freely in favor of the Georgia burr over any other in the world. I saw many letters from millers to corroborate this opinion. I recommend the proprietors to take immediate measures to introduce these stones into all the northern states. They should establish an agency at once in New-York City, not only for the sale of the manufactured millstones, but the blocks, also, so that those now manufacturing from imported blocks may obtain a full supply of an article not only superior in quality, but less in price—one of the products of the teeming soil of America.

SOLON ROBINSON.

Macon, Georgia, Jan. 6th, 1851.

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A. B. Allen & Co. are appointed the New-York agents for the above millstones, and will be pleased to answer any enquiries regarding them.

MULCHING ORCHARDS—CULTIVATION—PLANTING.

IN the September number of the Agriculturist is an editorial notice of my practice in mulching fruit trees; but as there are two or three errors of fact in the notice, I proceed to correct them, and detail further at length the benefits of such treatment. You say "the trees were set in a *hard clay* soil, and had made little or no growth for four or five years past." Not so. The soil is a rich clay loam, with a clay subsoil at the distance of a foot to 18 inches below the surface. The trees have been set about five years—were a scrubby lot of natural stocks from an old nursery, which, by the way, I never ought to have planted; for although I got them for half the price of good, thrifty worked trees, it was a decidedly bad bargain, as the latter kind of trees, set three years afterwards, are now quite equal to them in growth.

As soon as the trees were planted, which was in the month of April, they were grafted at about branch high with good kinds, and most of the grafts took and grew well. The land was then in hoed crops and oats. But as I found it very difficult to keep teams from vexing and tearing the trees, I laid it down the second year to grass, since which it has been mowed. Every spring since it was so laid down, the trees have been well dug around the trunk for two or three feet each way, making a soft, cultivated bed of four to six feet in diameter. Still the trees did not make the growth they should have done, which I attributed mainly to the excessively dry summers we have had for three years past, and the roots were exposed to drought, from the fact of the *bare* surface of earth immediately over them.

In May, 1849, I dug a circular ditch, a spade deep and wide, about three feet from the trunk of every tree, and filled that with barnyard dung, laying the excavated earth partly over it, and threw the remaining soil around the stem of each tree. An excessively dry summer followed, and no sensible benefit was perceived. A few apples, however, were produced. Last April, I determined to try the virtues of *mulching*; and for that purpose, took several loads of old buckwheat straw and fresh marsh hay, and with a pitchfork, distributed a liberal forkful around the trunk of every tree, making a covering of five or six feet in diameter. The effect was, as you observed; and although the summer was nearly as dry as the year previous, the growth and bearing have been remarkable. Several times during the dryest weather, when the adjoining earth was parched and cracked, I lifted the mulch and found the earth beneath, cool, soft, and moist; and in addition to this benefit, it keeps down every weed and sucker from the roots.

So decidedly serviceable have I found this proof, that I have prepared materials for mulching all the fruit trees on the farm next year, some four or five thousand in number, of all kinds, in plowed land as well as in grass, satisfied that in no other way can they be so rapidly and cheaply cultivated. For this purpose, scarcely any decomposable vegetation comes amiss. Straw of all kinds, chip manure, spent tanner's bark, hundreds of loads of which are left to decay about the tanneries, rotten wood, leaves of trees, &c., all are useful, both in giv-

ing shade and protection to the ground, as well as in their decomposition, furnishing the required food for the most succulent and thrifty growth of the tree. To all or any of these, in an old, worn-out soil, I would add a thorough dressing of lime and ashes. These articles, together with phosphate of lime, (bones,) furnish the principal ingredients of the apple and pear, and a large per-centage of the wood of other fruit trees, as well as being those constituents of the soil most rapidly drawn out by excessive cropping. By this plain and simple process, I have little doubt, orchards can be well grown when in permanent grass, and the destruction avoided, so constantly occurring in plowed lands by the carelessness of plowmen, who all bear deadly hatred to a tree, particularly if a small one. The mulching, however, should be extended in area somewhat every year, to cover the increasing roots as they spread; and with such treatment, a plowing once in five or six years is all that will be necessary, if such process be required to incorporate manure into the soil at large.

L. F. Allen.

Black Rock, N. Y., Jan., 1851.

IRISH CATTLE.

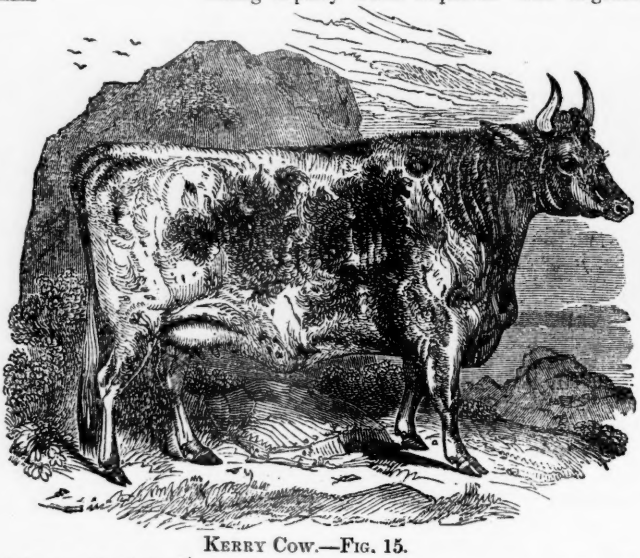
From an exceedingly interesting treatise on cattle about to be published by C M. Saxton, we make the following extract on Irish cattle, which will enable our readers to judge, in a measure, of the character of the work. It is edited by Mr. A Stevens, of this city, whose reputation as an importer and breeder of stock is too well known to require any further comment of ours.

The Irish cattle are evidently composed of two distinct breeds; the middle and the longhorns.

The middlehorns are plainly an aboriginal breed. They are found on the mountains and rude parts of the country, in almost every district. They are small, light, active, and wild. The head is small, although there are exceptions to this in various parts; and so numerous, indeed, are these exceptions, that some describe the native Irish cattle as having thick heads and necks; the horns are short, compared with the other breed, all of them fine, some of them rather upright, and frequently, after projecting forward, then turning backward. Although somewhat deficient in the hind quarters, they are high-boned, and wide over the hips; yet the bone generally is not heavy. The hair is coarse and long; they are black brindle, and black or brindle, with white faces. Some are finer in the bone, and finer in the neck, with a good eye and sharp muzzle, and great activity.

They are exceedingly hardy; they live through the winter, and sometimes fatten on their native mountains and moors; and when removed to a better climate and soil, they fatten with all the rapidity of the aboriginal cattle of the Highlands and Wales. They are generally very good milkers, and many of them are excellent. The cow of Kerry, a portrait of which is here presented, is a favorable specimen of them.

The cow of Kerry is truly a poor man's cow, living everywhere hardy, yielding, for her size, abundance of milk of a good quality, and fattening rapidly when required. The slightest



Kerry Cow.—Fig. 15.

inspection of the cut will convince the reader of the difference between this breed, and both the larger and the smaller longhorned Irish one.

These cattle usually are small, and are confined to the hilly and moor grounds. Some are of considerable size, elsewhere, and are improved in form as well as in weight. The horns are usually of middle length, turn up, as do the

horns of those on the mountains; they are shorter in the leg, shorter in the body; their loins and haunches are heavy and wide; although the hair is thick, the hide mellow, and they thrive with rapidity.

This breed is now not to be met with pure, except inland on the mountains; being nearly worn out elsewhere by the repeated crosses with the Leicester, Hereford, and Devon; but for the dairy, all the farmers still prefer those cows with most of the native Irish blood.

The other breed is of a larger size. It is the old or partially-improved Craven or Lancashire beast. It is the true longhorn; the horns first taking a direction outward, then forming a curve, and returning towards the face, sometimes threatening to pierce the bones of the nose at other times, so to cross before the muzzle that the animal is unable to graze.

IRISH LONGHORNED CATTLE.—FIG. 15.

The adjoining cut represents the large variety of Irish cattle, and is evidently identical with the Craven or Lancashire. In Tipperary, Limerick, Meath, a great part of Munster, and particularly in Roscommon, many of these cattle are found, which are most valuable animals.

Whence these longhorns originally came, is a question. There is no doubt that they very much resemble the English longhorns, and have been materially improved by them; but whether Ireland or England was the native country of this breed will never be determined. Ancient records are silent on the subject; and in both countries we can trace the longhorns to a very remote period. Many persons have concluded that the English longhorns sprung from some of the imported Irish ones. Others, however, with more reason, finding the middlehorns in every mountainous and unfrequented part of the country, and the longhorns inhabiting the lower and more thickly-inhabited districts, regard the middlehorns as the pure native breed, and the longhorns to have been a stranger race, and introduced, probably, from Lancashire; where a breed of cattle of the same character and form is found.

ORCHARDING.

Raising Fruit Trees from Cuttings.—Cut a scion of the last year's growth from the tree early in spring, and divide it into lengths of three or four inches each; dip the ends in rosin or grafting wax; plant the pieces in good orchard soil, first putting a little clean sand around them, and a shoot will start from each bud. Select the most thrifty for your standard, and lop down and cover the others with sand and earth to form roots. Out-door culture, at the south, will produce trees is this way, two years sooner than from seeds, particularly from apples, pears, and quinces. Roses and many other garden shrubs are propagated in the same way. At the north, artificial heat and moisture may be required.

Planting a Nursery.—Select a deep, rich soil and manure with decayed wood and leaves; plow deep, at least fifteen inches, and see the ground well drained. Plant the rows north and south, six feet apart; cultivate between the rows for two or three years, some hoed crops, as potatoes, carrots, bush beans, &c., and be sure to keep the young trees clear of weeds. Stone fruits always grow with more certainty, if planted while the seeds are moist, or with the meat adhering.

When the trees are one or two feet high, run a sharp chisel under and cut the tap roots; this facilitates removal when ready to set in the orchard, and enables the operator to do the work with less danger of injuring the roots—a very important matter, which is too much neglected.

Resetting Trees.—Be careful to place the trees just as they stood in the nursery, and do not cut away all the roots and tops. If your land is dry or not inclined to heave by frost, set out your trees in autumn; otherwise, in spring, as soon as the ground is free from frost, or sufficiently dry. Cover the earth with straw, chips, swingletow, hemp shives, pine straw or leaves, to keep it moist.

Pruning.—Commence the first season after setting your trees and go over them regularly every year, and your work will always be light. The best time for pruning is when the sap is circulating most freely. Commence early to form a round head, for that is the most beautiful as well as the most productive shape, particularly for apple trees. It is the practice of some orchardists to prune mature trees when in blossom; our own experience in this matter with peach trees, is in favor of such pruning. Large wounds, made by pruning or accident, should be covered with grafting wax. Fruit buds upon apple and pear trees are usually upon short, stout shoots, upon the sides of branches, two or more years old, though we sometimes see them upon the very ends of shoots one year old.

The quince fruit buds are usually upon the ends of spurs. The fruit buds of peaches, apricots, and nectarines are almost exclusively found upon shoots of the previous season's growth; and care should be taken in pruning, not to remove too many of these. The same shoots rarely produce but once.

To Prevent Mice from Injuring Young Trees.—Remove all the weeds, leaves, or trash from around the bole, and when snow falls to any considerable depth, tread them down firmly for the space of a foot or two, and they will form an effective protection.

IVY ON BUILDINGS.

It is a mistaken idea that ivy renders a structure damp, and hastens its decay. On the contrary, nothing so effectually keeps the building dry, as may be seen by examining beneath the ivy after rain, when it will be found that the walls are dry, though everything around is deluged with wet. Its exuberant and web-like roots, issuing as they do from every portion of the branches, and running all over the surface on which it grows, bind everything together that comes within their reach with such a firm and intricate lace work, that not a single stone can be removed from its position without first tearing away its protecting safeguard. In proof of this, we refer to ruins of ancient castles and buildings; for, while in those parts of the structure that have not the advantage of this protection, all has gone to utter decay; where the ivy has thrown its preserving mantle, everything is comparatively perfect and fresh, and oftentimes the very angles of the sculptured stone are found to be almost as sharp and entire as when first they came from the hand of the builder.

TO PREVENT MOTHS GETTING UNDER HIVES.

Pound a handful of peach leaves and salt them well and strew them over the bench under the hive. In two or three days, repeat the operation. The flavor of peach leaves is offensive to the moth, but not to the bees.

Another Remedy.—Raise the hive about an inch upon four little pebbles. Take a piece of half-inch pine board from three to six inches wide and a foot long; cut one side full of creases about a quarter of an inch deep; lay this creased side down under the hive and you will find all the millers will use it to raise their broods under; because it is a secure place from the bees, but not from the bee keeper. If he chooses to watch and kill, he will finally destroy the larvæ and *save* his honey.

CONNECTICUT FARMING.

Your paper, as I believe, has been the instrument of raising a spirit of inquiry and improvement among the farmers in Old Connecticut. No intelligent person can read it without finding many valuable suggestions. Science is throwing new light on most of our operations. We find even in our stony and gravelly part of the state, that deep plowing and thorough tillage are of great advantage. On a thin soil, with deep plowing and very little manure, we are able to grow large crops of buckwheat and corn.

Beautiful dwellings, with good barns and stables for cattle, are usually found on most farms. Sleek and beautiful, well-trained oxen, good horses, fine, fat sheep and swine you will find among us. Our young men are contented to stay at home and improve their native soil, instead of seeking their fortunes in the "land flowing with milk and honey" at the west. We take pride in rolling up those stone walls that seem so unsightly to some; and nothing looks finer to us than a good stone wall, built just to get the stone out of our way, and make a substantial fence. D. S. P.

Woodbury, Ct., Jan., 1851.

To Cure a Ring Worm.—Heat an iron shovel red hot, and put some grains of Indian corn upon it, and press them hard with a cold flat iron, and then iron the part affected.

THE TRAVELLER.—No. 4.

Journey from New York to Florida.—A few notes of this journey may be interesting to readers. December 11th, I left New York on that excellent boat, the John Potter, which leaves the wharf nearest the Battery on the North River, every day at noon, and arrives at South Amboy, 30 miles, in an hour and three quarters. It takes less than fifteen minutes to transfer a load of passengers and baggage to the railroad, and in four hours and a half, I tavelled with great ease the 96 miles between New York and Philadelphia. This is an excellent road, and is well furnished with first-class engines, cars, and conductors. Fare $3. I have heretofore spoken of the beneficial effects of this road to the agriculture of New Jersey.

December 12th, I left Philadelphia at 3 o'clock by express train for Baltimore. The distance, time, and price, is about the same as between New York and Philadelphia. Between Philadelphia and Wilmington, 30 miles, the road passes over a very valuable agricultural district, much of which being owned in England, is but poorly improved by the tenantry. A few miles after leaving Wilmington, the road penetrates a tract of country either naturally poor or made so by poor cultivation. The Susquehannah is crossed by a ferry at the old town of Havre de Grace, and from thence to Baltimore the land is much of it flat, wet, cold, unproductive, and uncultivated; yet all this might be warmed into productiveness by a better system of cultivation; but this will never be while land is of so little value as at present throughout this vast country.

December 13th, I proceeded to Washington, 40 miles. Fare $1.80, with only two or three little spots like an oasis in a desert, to relieve the eye from the painful contemplation of a worn-out country—once fertile. The wire fence erected by Col. Capron along this railroad, at Laurel Factory, still draws the attention of every observing passenger. It fulfills all the purposes anticipated in the description given in vol. 7 of the Agriculturist. I believe it is the only principle upon which wire fences can be erected to give satisfaction. It stands firm through all the variations of the seasons.

The land within sight of the dome of the American capitol is about as unpromising to the eye as it is to the cultivator. It looks poor, is poor, and cultivated poorer; yet wherever the experiment of deep plowing, draining, and manuring has been tried upon this unpromising soil, it affords profitable returns. For a market gardner, no place offers greater inducements, than the vicinity of Washington. Commodore Jones, who has a farm a few miles up the Potomac, told me that, when he commenced operations there, a few years since, it was the universal opinion of his neighbors, that he could not raise grass. But he commenced a new system with a new set of plows procured from you, turning over a deep furrow and following with a subsoil plow, the first one ever used in that vicinity, and by the use of the first lime, plaster, guano, and bone dust, together with all the manure that could be saved or manufactured, he soon had good fields of grass for hay or pasturage. Subsoil plowing not only saves land from suffering by drouth, but is almost invaluable in preventing the soil from washing away and forming deep gulleys. At first, his neighbors were very shy about experimenting with any of these fertilisers. Now, it is not unusual for one man to expend $500 for such substances, and make a large profit, too, upon the outlay.

December 17th, I passed from Washington to Richmond, 133 miles. Fare $5. The boat leaves there at 9 o'clock, stopping at Alexandria, about 10 o'clock, passes Mt. Vernon, the resting place of him who said—"*Agriculture is the most healthy, the most useful, and the most noble employment of man.*" It arrives at Acquia Creek, 55 miles, about one. Here we take good cars upon a railroad, which, after struggling through many difficulties, is now in very good condition; and if the owners of the lands along side of it only understood their interest, they would make it the means of improving large tracts, that now pain the eye with their barrenness. The advantages of railroads to agriculture seem to be as yet but little understood. The time will come when these worn-out fields will be whitened with lime brought over this road, the product of which will furnish constant employment to the freight trains, in transporting it to market. The soil is exhausted upon the surface, but the land is not "worn out." By means of the railroad, fertilisers will improve and render much that now looks bleak and desolate, desirable for a new class of cultivators. The greatest difficulty with the present owners is, they own too much. This and the fertility of new lands in the west are the causes of so much worn-out soil in the old states. It is more immediately profitable to cut down and destroy the forest and virgin soil, than it is to save or renovate the old fields. But who would always live a border life, half civilised and half savage for the mere love of cash accumulation? But this condition of things will continue, until the west is filled up, or until our

government and people by a course of education, shall disprove that foolish falacious doctrince—*there is no science in agriculture.*

Fifteen miles from the Potomac, we pass the town of Fredericksburg; from thence to Richmond, 63 miles, there is no town nor village of any consideration, and but few well-improved looking farms in sight. The cheapness of land, healthiness of the country, and convenience of the road, I should think, offer great inducements to immigrants from the north. The president of the road, a worthy branch of the old Virginia family of Robinsons, told me the company would transport lime at a very low rate for the purposes of improvement.

December 18th was a clear lovely day at Richmond, and the fact that stores kept open doors and small fires, will show my northern readers a contrast to their own condition upon the same day.

Left this evening at 6½ o'clock upon the Petersburg Railroad, which is now in excellent condition, and of much importance to travellers—it would be more pleasant if it connected by cars instead of stages, with the road at Richmond and Petersburg. The length is 22 miles. Fare $1. Passengers take supper at Petersburg, and continue their journey at 9 o'clock to Weldon, 63 miles—five hours. Fare $3. Thence to Wilmington, 160 miles, eleven hours. Fare $5. Having driven over the same route several times, I am able to speak of it in a manner I could not do by a mere night passage. Some twenty miles south, the land is very level, sandy surface with clay subsoil, which holds the water and gives the country an appearance of sterility to which it is not entitled. These lands, if well drained and manured, and set in grass, would give more profitable returns than any corn farm in the state. I understand some New-Jersey farmers are already developing their value. This railroad also offers great facilities to farmers both to improve their land by lime and in transporting produce to market. Travellers who grumble at the bad condition of the road would not do so if they knew what difficulties the company have had to encounter, and how poorly as yet they have been paid. Passengers for Raleigh leave this train about midnight, right in the woods; and those for Wilmington have to change cars at Weldon at 2 or 3 o'clock, in the open air, which, although a serious inconvenience, is far better than the old mode of staging.

Weldon is an inconsiderable village on the Roanoke, and there is one other upon the road between there and Petersburg; but from Weldon to Wilmington, there is scarcely a place of importance enough to bear that title. Nearly the whole length of this road is now in admirable order; and when it is considered that it has been built by the persevering industry and energy of the small town of Wilmington, through an almost entire wilderness, I am disposed to give them a tribute of high praise for the great work they have done.

From Goldsboro' to Wilmington, nearly the whole produce of the country is turpentine. What a curious appearance to a stranger is presented by pines upon a turpentine place. The white sides of the trees look like so many marble monuments, when seen by a dim light through the dark forest. Forty miles of this part of the road is level and straight—the land is poor, surface water in a wet time nearly covering the whole vast extent.

Wilmington is the great emporium of America for pitch-pine lumber and turpentine. It is situated upon the side of a very sandy hill, 30 miles above the mouth of Cape-Fear River. Here we take steamers for Charleston, 180 miles. Fare $5—time 17 hours. There are some valuable rice plantations upon this river. Dr. Hill, whom I chanced to meet on the steamer going down to his plantation, told me he made 70 bushels to the acre last season, and has made 90. A railroad is now building to connect the Wilmington road with the South-Carolina roads, in order to avoid the unpleasant sea voyage to Charleston.

I arrived at Charleston December 20th—perfect balmy May morning—think of that ye men of frost and snow and December storms!

Charleston Market.—December 21st., I have just returned from viewing the abundance of green vegetables, flowers and spring-like productions for sale, and now sit writing at an open window, enjoying the luxury of such delicious weather in winter. How unfortunate it does not continue throughout the year; but the difficulties, connected with summer in South Carolina, are equal to those in winter to the inhabitants of Canada and Vermont; perhaps more so, for health is more affected. How much every one should study contentment with his own lot, striving more to improve his situation than to change it.

Small Corn Crops.—In a visit to John's Island, I find much of the corn planted last spring did not produce over five bushels to the acre. What a difference between this and the premium crops of Kentucky, 190 bushels to the acre! Sweet potatoes did not average probably over 50

bushels to the acre, some planters barely making seed. This was owing to the drouth that almost desolated many places.

SOLON ROBINSON.

Charleston, December 25th, 1850.

PREPARATION OF BONES FOR MANURE.

THERE is great economy in reducing bones to as fine a condition as possible before applying them to the field. If added in their unprepared state, they will yield a portion of their substance to the crops; but 100 bushels will produce no more effect for a single season, when thus applied, than perhaps 5 or 6 bushels, when finely divided. If the 100 bushels, then, be ground or decomposed, and applied to 20 acres, we shall have an equal amount of benefit accruing to each in a single season, that would be otherwise derived to the land for 20 successive years, if applied unground on a single acre. There are five modes of preparing bones, namely, grinding, burning, steaming, dissolving with sulphuric acid, and fermentation.

Grinding is an expensive mode of reducing bones. Large and fresh bones are so hard and tough, that immense power is required for breaking and reducing them sufficiently for agricultural purposes. Costly mills of great strength and requiring considerable motive power are necessary. Such an outlay can only be justified where a large quantity of bones are to be prepared. There are no small machines within our knowledge, adequate to the objects and adapted to the use of the small farmer. We cannot, therefore, advise a resort to this mode. Unless a mill is erected by some individual or company to grind for a neighborhood, or for a more distant market, we would advise the adoption of some one of the other modes of preparation.

Burning the bones is an economical and summary mode of preparation, but is attended with the certain loss of much of their valuable properties; the albuminous or nitrogenised, and the oily or fatty matters, amounting to about one third of the total of fresh bone. These matters are all useful as manure; but with the exception of the nitrogen, are not essential to be applied to the land. About two thirds of the bone, the earthy portion, remain after burning. This consists of about 80 per cent. of phosphate of lime; 16 per cent. of carbonate of lime; 2 or 3 per cent. of phosphate of magnesia, and nearly equal proportions of soda and common salt. All these are indispensable to vegetable growth, and unless the soil is previously saturated with them, they cannot fail of adding greatly to the crops. The bones, by this process, are reduced to their finest condition, and thus readily yield their substance to the roots.

Steaming bones has lately been adopted as a system in preparing them for the agriculturist. This is done by using a strong boiler with a false bottom inside, on which the bones are placed. Water is then added so as partially to cover the bones and when converted into steam, it completely envelopes them, for 24 hours, at a pressure of 24 lbs. to the square inch, when they are reduced to an unresisting mass. We subjoin some particulars of this process from the London Farmers' Herald.

The boiler is circular, 6 feet long, and measures 3 feet 4 inches in diameter. It is constructed of the ordinary boiler plate, of $\frac{1}{8}$ inch thick. In the front, the man hole, or door, is placed, 9 inches from the bottom, and $13\frac{1}{2}$ from the top, and $12\frac{1}{2}$ inches from each side. The man hole is closed by a plate door, secured by wedges and screw bolts in the usual manner, upon a jointing of hempen gasket. Inside the boiler, a straight false bottom of sheet iron, on which the bones are placed, is fixed immmediately below the man hole. Close upon the bottom of the boiler, a stop cock is placed, for the purpose of drawing off the liquid at the conclusion of the process, if necessary. On a level with the false bottom, is placed a gauge cock, to show whether the water has risen or fallen to that level; about 10 inches above, a second or steam cock is fixed. A safety valve on the top of the boiler indicates the pressure of the steam, and secures the boiler from explosion. The water for steaming the bones is filled by a water cock at the top of the boiler. An extra steam cock is likewise placed at the top of the boiler, for the purpose of supplying steam for any other operation, as for steaming food, &c., when required. The boiler is set in mason work and lined with fire bricks, the length of the mason work being, 7 ft. 2 in. and 5 ft. 5 in. in height, the sides spreading out 13 inches from the boiler. The smoke of the fire passes off directly through the chimney, which is more than 15 feet in height.

Early in the morning, the boiler is filled with bones, through the man hole, and the door of the same is then fastened steam tight. To secure this, the gasket of hemp, which lies between the two metal surfaces of the boiler and the door, is smeared with a luting, made by moistening oatmeal with boiling water, and working it by the hand into a stiff paste; the door is then replaced and screwed tight. This luting, which perhaps may just as well be made of common flour, answers perfectly the purpose, and is

much better than white or read led, made into a paste with boiled linseed oil.

The water for generating steam is filled in the boiler to the depth of 12 inches from the bottom, and as the space between the true bottom of the boiler and the slip bottom, on which the bones rest, is 9 inches, the water rises about 3 inches amongst the bones. From the time of kindling the fire, it takes about one hour to get up the steam. During 24 hours, the steam is kept as uniformly as possible at a pressure of 25 lbs. to a square inch, a boiling during 22 hours having previously been tried, but found insufficient for reducing afterwards the bones to powder with ease. As no water can escape in the form of steam during the boiling, one filling is sufficient. Before the withdrawing of the charge, the fire is removed, the steam let off through the safety valve, and about 3 bucketsful of the watery liquid, equivalent to 7½ gallons, drawn off, in order to reduce the water to a little below the false bottom, on which the bones rest. The man hole is then unscrewed, and the whole allowed to cool down for a little while. While still warm, the contents of the boiler are shovelled out successively by one man who is assisted by another, in crushing the bones, by means of a wooden mallet. The reducing to powder is rendered so easy by this process, that it requires no longer time for crushing the bones than for taking them out of the boiler as fast as they are shovelled out as soon they are mashed into a rough powder by the second man. It is necessary to bring the bones under the action of the wooden mallet, in successive portions when still warm; for when allowed to become cool, they require a greater effort to bring them to powder. The steamed bones treated in this manner contain much water, absorbed in the boiler; thrown into a heap, while yet warm, they not only retain their original heat, but in a very short time the temperature of the heap increases very considerably, and at the same time a most disagreeable smell of putrefying animal matter is given off. The fermentation of the bones, however, which is the cause of this, and consequently the loss of ammonia, may be prevented entirely by adding a small dose of common salt to the steam boxes. Nearly 1,100 lbs. of bones are thus prepared at one time, by the use of a boiler of the forenamed size, and at a cost for fuel, where peat or anthracite coal are used, scarcely amounting to 50 cents. This process requires less fuel than burning, and it has this further advantage: that not a particle of the substance of bone is wasted.

Dissolving with Sulphuric Acid requires that the bones be first partially broken up, then thrown into tubs or casks and saturated with diluted sulphuric acid, as before detailed in our columns.

Decomposition by Fermentation is the last process we shall mention. If fresh bones are thrown into compact heaps and mixed with moist sandy loam and ashes, they will gradually become heated and decomposed. The result will be materially hastened, by occasionally sprinkling with urine, and especially by mixing with horse manure. If the bones have been deprived of their animal matter, they will not ferment. The presence of nitrogen is essential to induce and carry forward fermentation, and this is only found in the anamalised matter of the bones. During the decomposition of bones, putrefactive odors are given off, which occasion a loss to the manure heap, while they are an insufferable annoyance to the olfactories. This objection, however, may, in a good degree, be remedied, by covering the heap with rich decayed turf, peat, plaster, charcoal, or any other absorbents.

The value of bones for agriculture may be inferred from the fact, that nearly 33,000 tons were imported into England in 1848. The value of bones used for agricultural purposes in that country, annually, is estimated at about $4,400,000. In the United States, they are fast becoming appreciated, and it will not be long before every bone in this country will be carefully husbanded, and applied to the augmentation of our crops.

FAIR OF THE WASHINGTON-COUNTY AGRICULTURAL SOCIETY.

The Washington-county Agriculture Fair, held at Argyle Corner, September 18th and 19th, 1850, all things considered, was a respectable exhibition. The society has no purchased grounds, consequently no buildings relieve its members from the necessity of making charge for and handing out admission tickets—all free except those who enter as competitors for premiums. There were exhibited the best horses, taking them altogether, I have seen this season. They were all fine, studs, geldings, brood mares, colts, &c. The Black-hawk breed here stands A, No. 1.

The exhibition of horned cattle was creditable to the owners. A fine team of oxen, some nine pairs long, was exhibited by the neighboring farmers, drawing a wagon 30 feet long or more, loaded with a great variety of the products of

a farm, together with an assortment of farming implements. The Durham stock was well represented, also the Devonshires. The Durhams are here generally preferred. Notwithstanding the objections of some of my New-Jersey friends to the Durhams, I think I would be satisfied with owning as good cows as were shown at this fair.

No great variety of farming implements was exhibited; some well-finished fanning mills, some polished plows, Taplin's horse power, or one resembling it, and some splendid carriages, harnesses, a team wagon or two, being the principal.

The display of quilts, specimens of needle work, &c., were as good as circumstances would allow. For the exhibition of flowers, fruits, &c., there was no other covering than a canvas tent and that was quite too small. A painting, representing a snow storm, executed by a lady of Washington county, attracted general attention. This was so strikingly natural that the beholder would involuntarily draw his coat closely around his person to repel the violence of the chilling scenes.

The second day of the fair was quite rainy; and oh! what quantities of clay mud. Notwithstanding the unfavorableness of the weather, the attendance evinced a determination to excel.

Another year will probably find the society in possession of grounds and permanent buildings, and it is to be hoped, ample accomodation for visitors.

ALONZO SHERMAN.

NOTES FROM A KITCHEN GARDENER'S MEMORANDUM BOOK.—No. 2.

Lima Beans.—Owing to the frequent cold rains during the early part of May, my first and second planting rotted; and as the weather at this period of the year is so undetermined, the gardener is always subject to disappointment by planting in the open ground; and where a few only are required for private table use, I am of opinion it is best to forward this choice esculent and tender plant in pots, placed in frames, which plan I intend for the future to adopt; and not being confined to a single enclosure, I have determined not to plant them in the garden, as they occupy much room, and the poles, before they are covered with the vines, are unsightly.

Bush Beans.—As the kitchen garden can hardly be said to be complete without some of this variety, I usually plant a few, endeavoring to get them in sufficiently early to have them cleared off in season for putting out late broccoli. Their cultivation is simple; planted in drills, kept free from weeds, and in growing condition by frequent hoeing, occasionally drawing the earth up to their stems.

Windsor Beans.—In England, this bean is extensively cultivated and highly prized as a culinary vegetable. With us, and I think justly so, it is thought to be far inferior to the Lima bean; and not being well adapted to our climate, is but little cultivated. The chief difficulty we have to encounter in its cultivation, is, that the hot sun destroys the blossoms before the pods are formed, leaving the cultivator nothing but a fruitless stalk. In order to prevent this, it is highly important to plant as early in the spring as the ground can be broken, and endeavor to have them forward before the approach of hot weather; and with the view of further prevention, I planted them between the rows of peas, which I usually plant from five to six feet apart, and by the time the beans were in blossom, the peas afforded a partial shade, and I succeeded in obtaining a fair crop. If the value of the fruit were the only object, I would not grow them; but producing a beautiful blossom, and not being common, I will in future cultivate a few, pursuing the same mode of planting. I also planted a few on the 9th of August last, with the view of having them in autumn. They blossomed freely but did not fruit. They are very hardy, and now, the 21st of November, are yet in bloom, seemingly not the slightest affected by the recent frost.

Potatoes.—Of this valuable product, this year, I planted nine varieties, principally imported from Europe, and had the gratification of harvesting all of them in sound condition, excepting the "Mercers" and "western reds," a portion of which were rotten. All were planted at one time in the same locality and received similar treatment. Next year, I intend to plant chiefly the foreign seed I have this year acclimatised. For the last two years, I have succeeded in raising two crops of "early sovereign" potatoes, and about one third of a full crop of "red-topped" turnips from the same piece of ground, in one season. As early in the spring as the condition of the ground will permit, I plant the first crop in drills, three feet apart. From the 1st to the 10th of June, according to the forwardness of the first planting, I put in the second, thus:

First planting. * * * * *
Second planting. * * * * *
First planting. * * * * *
Second planting. * * * *
First planting. * * * * *

About two weeks elapsed before they appear above ground, and about a fortnight before they

attain any important size, which brings us into the early part of July, at which time, the first crop is ready to be taken off, leaving the entire space for the second to grow in. Towards the latter part of August, we find between the rows of potatoes, which are planted six inches wider than usual, sufficient room to drill in turnip seed, which, before requiring more room, the second crop of potatoes is at maturity, and when taken off again, leaves the entire space for the turnips. By this manner of planting, about four weeks are saved, to which, for the success of the experiment, I am indebted.

IMPROVEMENTS IN AGRICULTURE IN MISSOURI.

Twelve months ago, I do not believe that there were exceeding half a dozen agricultural journals taken in the county in which I live. Now, the subscriptions to the Agriculturist, alone, in this county, amount to about sixty, a large majority of that number, too, having been sent to the publisher since the beginning of July, and they are still presenting themselves more freely than they have done at any time heretofore. It is beginning to be taken, too, in the upper, (river,) counties of the state, as also south of here.

A subsoil plow had never been seen here before the arrival of those which you sent last fall to Mr. Hayden and myself. Every intelligent farmer, who has seen their work is much pleased with them, and I am encouraged to hope that many will avail themselves of the advantages which would most surely result from their use. Thanks to your labors, and thanks, too, to the labors of your enlightened correspondents. You are all entitled to the country's gratitude. At any rate, you have mine. It will ever be so. The circulation of well-conducted agricultural journals will bring to the knowledge of farmers new and improved implements and modes of husbandry, which, if adopted, will always better their condition, contribute to their thrift, and enhance their comfort.

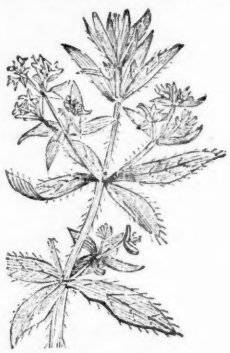
I have been at much expense for plows, and yet I can seldom get a good one. I do believe, that if your eagle plows could be fairly introduced here, a great, yes, the greater number of plows with which we have heretofore broken up our lands, would be laid aside as nuisances. I will mention one other improvement which the farmers on the prairies need—a clod crusher. It is the most expeditious and efficient pulveriser I have ever seen, and is also cheap and simple. Still more do farmers on stiff clays need it. I speak advisedly, because I have one and have used it.

I cannot close without congratulating you, my state, and more especially my country, that the plows now ordered will come into the hands of gentlemen of intelligence and discernment, and gentlemen, too, whose representations will be implicitly relied on wherever they may be made. Urbane B. Oglesby.

Boonville, Mo., Jan., 1851.

MADDER.

The root of madder, (*Rubia tinctoria,*) is used for several dyes, but principally for the rich Turkey red; and it has been recently an object of attention in the United States. The introduction of this, with numerous other articles consequent upon the extended growth of our manufactures, shows the intimate and mutually beneficial effects of associating the two leading industral occupations of agriculture and manufactures. The principal cause which has prevented its cultivation among us, thus far, has been the long time required for maturing a crop. Another drawback in its culture, in this country, is the want of suitable mills for breaking and grinding the roots. This may be done immediately after the madder is dried; or it will gather dampness, so as to prevent its grinding freely. Any common gristmill can grind madder properly; and when ground it is fit for use, and may be packed in barrels, like flour, for market.



Madder.—Fig. 15.

Mr. Swift, of Ohio, has raised 2,000 barrels per acre in one crop of four years' growth, at a net profit, including all charges of rent, labor, &c., of $200 per acre. The roots of madder are also a good food for cattle, but the expense and delay of producing it will preclude its use for that purpose in this country.

For the culture of this important plant, see Allen's American Farm Book, pp. 226, 230.

WHAT MIND WILL DO IN AGRICULTURE.

For twenty years, John Delafield, Esq., now of the county of Seneca, and recently elected President of the New-York State Agricultural Society, was a leading and successful banker in the city of New York, at the head of one of its largest institutions. Seven or eight years since, he retired to the banks of Seneca Lake, where he had purchased a fine farm, and commenced, without early experience or knowledge in agriculture, the profession of a farmer. Carrying into his new vocation the same energy of action and thought, which had distinguished his career through his active business life, he soon acquired the necessary knowledge for the successful cultivation of his farm; and by his good sense and enterprise, soon won the confidence of the farmers of Seneca, who elected him president of their county society, in which position he effected more for the *progress* of cultivation among them than any other individual had ever done in that county.

Within the last year, Mr. Delafield made an agricultural survey of the county of Seneca, under the auspices of the state society, probably the most complete in its details of any agricultural survey ever made in the United States. The report accompanying the survey has received full approbation of the society, and is to be published in the forthcoming volume of its transactions. The document is replete with every kind of information in regard to the agriculture of the county, its various statistics, population, pursuits, &c.

The labor of making this survey occupied Mr. Delafield eight months of the year past, and in his bill of expenses, rendered the society, which was only a few hundred dollars, he left it with a committe of that body to fix the wages which he should have for his personal services, stating, that, while absent from home, he had hired one extra man to oversee his farm work, but, generously adding that as this might become a precedent for the government of the society in its future county surveys, the committee should fix a moderate rate of compensation for such services. The committee did fix the rate, and allowed Mr. Delafield, (who in past years, at the hands of his board of directors in Wall street, received his $5,000 per annum,) $14 a month for his labor, and $6 for his board, besides a proportionably compensatory amount for the use of his horse and carriage while making the survey. This he declared was perfectly satisfactory; and that he felt prouder of the compensation for that labor, than any which he had ever performed, and as being the most truly useful work of his life!

In this simple transaction, is an example as worthy of record as any transmitted to us in Roman history. Mr. Delafield is now the honored head of our state society, under whose direction we have every confidence that it will achieve new laurels, and add to its already world-wide reputation for usefulness and honor.

New York, January, 1851. L.

PROTECTION OF SHEEP AGAINST DOGS.

The destruction of sheep by dogs has for a long time proved a serious evil in several of our neighboring counties. We know that many farmers have been obliged entirely to discontinue the raising of sheep, in consequence of the great insecurity from dogs being allowed to roam at large in their neighborhood. There are no animals more profitable to the farmer than sheep, and it is an abridgment of his rights and an injury to the public that the propagation of sheep must give way to that of dogs. The dog is useful in his place, but that place is his master's own premises; elsewhere, he is a nuisance, and when he becomes dangerous, it is time that the law should interfere.

The present law is incommensurate for the protection of the farmer in his sheep. The tax upon dogs is entirely inadequate to produce anything like a sufficient fund to respond for the damages done by them to sheep, and the county is not interested in its collection because there is no responsibility beyond the amount of the fund. In many towns, there are persons who own several dogs who could not pay for one sheep.

The following petition to the legislature has been prepared, and copies will be left at our office for circulation and signature.

To the Honorable the Legislature of the State of New York:

The petition of the subscribers represents: That they are farmers and desirous of continuing the breeding of sheep, which they deem as profitable stock as any they can have upon their farms. The only difficulty is the destruction of sheep by dogs. These two species of animals cannot exist in the same neighborhood, if the dogs are allowed to roam at large. It is not only the cruel slaughter of the sheep which occasions loss to your petitioners, but flocks, which have once been attacked by the dogs, are rendered unmanageable and comparatively valueless. As dogs are more or less the enemies of sheep, and if some are not of them-

selves inclined to commence the attack, they are liable to be led off by mischievous associates, so that the question must be determined, which of these animals are the most valuable to the public. The comparison cannot be made upon any individual estimate; for one dog will, in a short time, maim and destroy a score of sheep. Your petitioners do not propose to make the same war upon dogs, that the dogs do upon the sheep; but they desire that, by the most stringent enactments, the dogs may be kept always at home, or under the immediate control of their masters. They do, therefore, respectfully ask that a law may be passed charging upon the several counties within the state, all losses that may arise within the same, from the injury or destruction of sheep by dogs, without restriction as to the funds that may be in the treasury from the dog tax, and giving to the several boards of supervisors, throughout the state, the most ample powers to make such laws and regulations with regard to the keeping of dogs, and the tax to be paid for them as will protect the county from loss; and especially providing that the owner of every dog, found at large, in the public highway, or upon any premises other than that belonging to his owner, unless under the immediate control of his owner, or some one of his family or servants, shall be subject to a penalty of $50 for every offence; and that any person shall have full right to kill any such dogs, found at large, within the town in which he may reside. Your petitioners present herewith the draft of a law to which they respectfully ask the consideration of the legislature.

HORSE SHOEING.

The following exceedingly sensible remarks are from the pen of Mr. Miles, Veterinary Surgeon to the Queen of England's Life Guards, and author of several valuable veterinary works. We commend them most particularly to the notice of every person who has that valuable, and almost indispensable animal, the horse, in his charge. That class of persons very justly characterised by Surgeon Miles, as "asinine smiths," are invited to give their attention.

The shoes of the horse should be of equal thickness throughout, with a flat ground surface, as those with high heels, which asinine smiths make in imitation of their own, are dangerously absurd. The toe, which ought to be raised, is thus lowered, and nature's plan reversed, which elevates the point in order to avoid obstructions. The web should be wide, and of the same width throughout, instead of being pinched in, because the Vulcan operator likes to see the shoe well set off at the heels. This is both unphilosophical and detrimental; it deceives the eye of man, and injures the foot of the horse. The *outer* edge of the foot rests on the inner edge of the shoe, and the remaining width of the web projects beyond the hoof; so that the master who thinks his horse has a good open foot, only has to be proud of a bad open shoe, which both conceals deformities underneath, and invites with open arms a bad road to come and do its worst. The heels are made bare just where the navicular joint is most exposed; and if that be inflamed, what must the agony be when the unprotected foot treads on a sharp flint? The horse falls suddenly lame, or drops as if he had been shot—phrases in much too common use to require explanation; and small is the pity which the suffering animal meets with from man, who, having first destroyed the use of his victim's feet, abuses him because he cannot go; and imputes "grogginess" to him as a crime, as if he were in liquor like a groom, and not in agony.

BEST TIME FOR CUTTING HICKORY TIMBER.

Permit me to mention a fact in relation to cutting hickory timber for farm or other uses. Three or four years ago, I was told by a very old man, (who is famous for his forks, rakes, &c., made of hickory,) that if I would cut the wood upon the 4th, 5th, and 6th days after the new moon, in August, that he would warrant it not to be destroyed by the worm nor borers. The result for several years has verified the old man's prediction, whilst that cut through the winter and at all other times through the summer, and not barked, (as a trial,) has been eaten throughout. Not being a lunarian, I endeavored to account for its preservation to the old man, by stating that the hickory, at that particular time, was in the chrysalis state, and therefore incapable of depositing the egg, &c.; but this he looks upon as rank heresy.

A Virginia Farmer.

Winchester, Va., Jan., 1851.

Writers for the Agriculturist, are requested to make their communications brief and explicit. Goethe says: "The design of language is to give expression to thought; that style of writing, therefore, must necessarily be the best which most rapidly, clearly, and perfectly conveys to the reader's mind what the writer intended he should understand.

Ladies' Department.

Twenty-nine years ago, Betty Winal, then residing at Tarlton, bottled a quantity of white currants in their green state, being then in the 33d year of her age. Having kept them some time in a state of preservation, William,(her husband,) and she agreed that they should be kept while they both lived, and that they should be made into pies at the funeral of the one who should die first. The wife departed this life on the 2d of this month, and was interred at St. Peter's Church, Preston, on the 5th—the family having removed to Dawson street, Preston. Their mutual pledge was fulfilled, and the pies made of these currants were served out, after returning from church, every attendant taking a slice. Though the currants had kept twenty-nine years, they were as fresh as if just taken from the trees. Any other fruit may be preserved in the same way by expelling the air and sealing over the cork air-tight.—*Exchange Paper.*

Rye Flour, when made into good light bread and allowed a day or two to ripen, is very nutritious and wholesome. Rye flour more nearly resembles wheaten flour in its composition than any other; it has, however, more of certain gummy and sugary substances, which make it tenacious, and also impart a sweetish taste. All grains and roots which have much starch in them undergo a great change in their chemical composition by baking—flour becomes more nutritious, and more easily digestible, because more soluble. This is also the case with flour; that is, the starch, gluten, and sugar of potatoes, when baked, or what is still better, when roasted in the hot embers of an old-fashioned farm-house fire.

Dress of English Women.—The women of England understand better what is due to propriety in this respect. They may, and do dress gorgeously in their assemblies, in their private parties of fashionable resort; but in the street, they are marked with great plainness of dress. Sober and delicate colors, absence of chains and diamonds, the close-fitting hat, neat mantle, and thick shoe, attest their thorough good sense in the matter. We wish American ladies would copy them in this thing, instead of aping the follies of the frivolous Parisians.

Will the time ever come when a cultivated intellect shall preponderate over dry goods? or a correct and delicate perception of real comfort and beauty, over the absurd and continually-varying fashions of the day?—*Exchange.*

Brown Bread *vs.* White.—The reason why brown bread is considered more healthy and more nutritious than when made of superfine flour, is, because the outer portion of the kernel of wheat contains the greatest proportion of oil and gluten; and this is the reason why bran possesses such fattening qualities. The best fine flour contains about seventy pounds of starch to each hundred. The residue of one hundred pounds consists of ten or twelve pounds of guten, six to eight pounds of sugar and gum, and ten to fourteen pounds of water, and a little oil.

Habits of Jenny Lind.—She is remarkably temperate in all things, carefully avoiding stimulants of every description. She is an early riser, bathes every morning regularly, winter and summer; and exercises much in the open air. She always dresses with a view to comfort rather than show, religiously avoiding tight lacing. She partakes freely of the plainest food, using much fruit. She attributes her uniform good health to her temperate mode of living, she seldom having occasion to consult a physician.

Gigote, is the name of a Mexican preparation of beef, very useful to travellers in the desert. It is made by drying the jerked meat until it can be finely pulverised, to which is added, as a matter of course, a quantity of powdered pepper pods, and is then packed in bags for the journey. It makes a very good soup or savory stew, particularly with a little addition of wild game. A slice of salt pork gives it a very palatable relish.

To Make Fine Hand or Shaving Soap.—Cut up fine, a bar of good white soap, and moisten it into a paste with sweet oil, and scent it with rose, lemon, musk, or any other sweet-smelling savor you like.

Bed Bugs.—There is a long article in the Valley Farmer by which it is established beyond question that sweet oil occasionally rubbed over bedsteads, chair boards, &c., will effectually prevent the appearance of bed bugs. We think it unnecessary to publish the evidence of the efficacy of this cheap and agreeable preventive of the nuisance in question. The reader will take our word that it is conclusive.—*Ex.*

Worthless Furniture.—A lazy woman is the most worthless and troublesome piece of household furniture a man can have.

Foreign Agricultural News.

By the arrival of the steamer Canada, we are in receipt of our foreign journals to the 18th of January. The only matter of interest in the markets, is, that cotton has fallen ¼*d.* per lb.

March of Intellect,—In the 15th century, a cock was burnt alive by order of the magistrates of Basle, in Switzerland, for having laid an egg, the said chanticleer having been convicted of sorcery. Read in the London papers the recent letter of Miss Martineau, on Mesmerism, and the cure of her sick cow, thereby, and you will admit that we must not laugh at the medieval superstitions.

Roots in Drain Pipes.—I once found in a drain, 4½ feet deep, a mass of roots which had completely choked the inch-and-a-half pipe, though laid but 18 months. These roots were from a mangold-wurtzel crop just removed off the land.—*Agricultural Gazette.*

Quantity of Carbonic Acid Borne by Plants.—Plants will bear five per cent. of this air, in addition to what is natural to them; but they then require exposure to very strong light. Probably one or two per cent. is as much as it would be safe to use.

How to Make Cows Calve in the Day Time.—Every one has felt the inconvenience of having his cows calve during the night. In all seasons, but especially in winter, this is exceedingly annoying, and not only demands continual useless watching, on the part of the cow keeper, but also often, indirectly, causes the death of the calf and its mother. Now it has been ascertained by a person living in the neighborhood of Utrecht, that a cow with calf, milked for the last time at night instead of in the morning, calves in the day and not at night. Out of 30 cows on which the experiment was tried, only 3 or 4 are mentioned by M. Numon, Professor of Agriculture at Utrecht, as being exceptions. As confirming the above statement, we may mention the fact, that a large farmer in the Campine has also tried the same plan with success.—*Flore des Serres.*

Animals by Nature Wild.—Speaking of the leveret, it is worthy of remark that this animal being *ferœ naturæ*, is one of the most difficult to tame, permanently, of all creatures. The late Sir John Sebright called on me some years ago, to see my collection of robins, of which he had heard so much; and during a lengthened conversation of great interest to both of us, he put me in possession of many singular facts with respect to animals "by nature wild." To mention only two: Sir John told me he had procured some eggs of the wild duck, and placed them under a domestic hen. They were hatched in due course, fed, and brought up with the other chickens, ducks, &c., in the poultry yard. Still, they gave early signs of the wildness of their nature. They were pinioned, and thus made apparently tame; but when the wing feathers reappeared, the birds one day, on a slight alarm, took flight, and disappeared altogether.

The second instance of natural wildness being indomitable, presented itself in the case of some half dozen wild rabbits, taken from the nest soon after they were kindled. Sir John lavished on them much of his attention; tried every means to tame them; all in vain The animals gave early evidence of the instinct of their nature, and were ultimately let loose to run riot in a warren.—*Gardeners' Chronicle.*

Preservation of Timber.—The Hospitium, at York, consists principally of oak timber, which has never been painted. It is many centuries old, and is sound to this day.

The oak timber employed in old churches for pews, and found in old ruined castles, where it was used for beams, as for example at Stone House, in Herefordshire, and in our most ancient buildings for roofs, has never been painted; all these are many centuries old, and yet they are sound in most cases.

The wooden fence, of rent oak, fixed about 27 years since round the garden of the Horticultural Society, was never painted. The pales are as sound as ever. The only decay is in the posts, where they go into the earth; and there the sap wood is rotten, as usual.

About 28 years since, a slight fence was put up near where we are writing; it was cut out of Lombardy poplar, just felled, and was immediately fixed. After being erected, it was coated well with boiling coal tar, which sunk deeply into the soft wood. That fence was sound for full 20 years, and exists now, though in a decayed condition.

Question 1. Would it have stood at all without tar?

Question 2. Would it have stood longer had it been seasoned before being tarred?—*Agricultural Gazette.*

How to Saturate Peat Charcoal with Ammonia.—A friend of mine has a quantity of it. How shall he treat it so as to get it saturated with ammonia? At present he has some flour barrels, with a few gimlet holes in the bottom, three parts filled with charcoal, into which are poured the urine of the feeding cattle. The liquid after standing for some time in the cask, is drained off, and a fresh quantity poured on. After how long a time, or how many saturations of urine will be sufficient to prepare the charcoal? Is this the best or proper method? Can the charcoal be used for top-dressing for grass or wheat, or is it the best for turnips? I suppose it must be kept from wet. The charcoal has been prepared, and most satisfactorily and cheaply, in a kiln, or furnace rather, used for making small coal into coke; it was burnt for 48 hours, and the peat lost two thirds of its weight, but not very much of its bulk. Should this same charcoal turn out half so valuable as Mr. Jasper Rogers would have people suppose, the farmers in some parts of this district will be able to supply themselves with any quantity, at less than 1*s.* 6*d.* per cwt. [The charcoal may be used so long as the liquid coming through it seems purified by the filtration; and that can be ascertained by sight and smell; or by adding acid, which will make old liquor effervesce if it be not well filtered. Charcoal thus treated will be a capital top-dressing for grain crops.]—*Ibid.*

Editors' Table.

O. B. Scott, of Pierrepont Manor, Jefferson county, N. Y., is travelling agent for the Agriculturist.

Solon Robinson in Kentucky, Tennessee, Arkansas, and Missouri.—Mr. R. is under many obligations for the good wishes repeatedly expressed by his kind-hearted friends in the above states, and at the same time assures them, it is his intention to visit them one by one, as soon as circumstances will permit. He has several times already passed through parts of these states, and remembers with gratitude the generous, warm-hearted hospitality that greeted him during his short stay there; and he also well recollects the fertility of the soil, the great natural advantages of the country, the intelligence and enterprise of the people, and the many excellent examples he found there of a high and enlightened culture of extensive farms and plantations. Kentucky is probably the finest stock-raising country in the United States, although parts of Tennessee, Missouri, Illinois, Indiana, and Ohio are becoming strong competitors with her in this department. But there is room and a good market for all. May the spirit of improvement, kindness, and mutual assistance pervade in every American bosom.

Dr. M. W. Phillips, of Mississippi.—We are pleased to learn from a letter recently received from this distinguished friend of southern agriculture, that, partly from the urgency of his friends, and partially from his own thirst for agricultural knowledge, he is shortly to make an extensive tour in Europe. We shall hope for considerable information on the various topics of agricultural interest from his shrewd observation while abroad.

Missouri Wine.—Herman, in Gasconade county, is the chief wine-growing district in Missouri. It is surrounded by luxuriant vineyards, from which there will be produced this year, from 30,000 to 40,000 gallons of wine. The day may come when Missouri will be as distinguished for her grapes and wines, as hemp, tobacco, and other heavier products.

Manufacture of Castor Oil in South Carolina.—We noticed a shipment of this article last fall, from Charleston. It was manufactured from seed grown in that vicinity, by Mr. C. Alts. The product per acre averaged 30 bushels.

The Tobacco Business.—There are in operation at present time in Richmond, Va., 43 tobacco factories, in which are employed over 2,300 hands, and which produce in manufactured tobacco 14,500,000 lbs. annually.

Snow Balls in Horses Feet.—It is stated that soft soap, well rubbed into the bottom of the hoofs, when clean, and before the horses leave the stable, will prevent the collection of balls of snow:—*Exchange.*

Louisiana Sugar Culture.—A new variety of cane, called the crystalline, has been introduced from Cuba, that appears to possess some better qualities to resist frost than the Bourbon or "red ribbon," which are the two kinds most preferred, though three others—the "green ribbon," Otaheite and Creole cane are cultivated The new kind is represented as a large cane, with a tough rind, large firm eyes, juicy, vigorous, and prolific—excellent qualities. The product of sugar last year has been very fair and the cultivation increasing.

The Properties of Maize, or Indian Corn.—The fact that starch could be profitably extracted from this great product of America, is a comparatively recent discovery. Yet, it is found to contain almost as great a proportion as wheat. The per-centage of starch in the best varieties of corn, is about 60 per cent.; nitrogenous substances, some 15, with a good portion of sugar and 10 per cent. of oil and gum. No wonder it has such fattening properties, as all practical men are well aware of its great superiority over every other kind of grain for that purpose.

The amount of starch in sweet corn is very small, not over 18 or 20 per cent.; but the per-centage of sugar is very great. The nitrogenous matter about 20, gum 14, and oil, 11 per cent. If it could be made to yield as much per acre as the more hardy kind, it would be the most profitable, because the most nourishing of all the varieties.

The Half Century; or a history of changes that have taken place, and events that have transpired, chiefly in the United States, between 1800 and 1850, with an introduction by Mark Hopkins, D. D. By Emerson Davis, D. D. Boston: Tappan & Whittemore. The half century that is now just completed, has been, on many accounts, the most remarkable the world has ever known. The progress of liberty, education, and religion has been very great. Intellectual and moral culture and the arts of civilised life have received a new impulse. The author has performed a good service to the country, in presenting this condensed view of those great events and changes which have taken place in our social condition. The volume will prove highly useful. It contains 444 pages, and is sold for $1.25.

The Great Metropolis; or New York Almanac for 1851. Price, 25 cents. New York; H. Wilson.

A Winter in Mederia and a Summer in Spain and Florence. 12mo., pp. 380. Price $1. Wm. Holdredge. The book might with propriety be called the panorama of Madeira; for it gives the reader as correct, an idea of the places visited, and the manners and customs of the people as if painted on canvass, or he were present and saw them. The author's son has shown himself equally skillful in the beautiful sketches of the house of Columbus, Funchal, Galileo's Tower, &c.

The Night Side of Nature; or Ghosts and Ghost seers. By Catherine Crowe. In one volume, 12mo. pp. 450. Price, $1.25. New York: J. S. Redfield. The object of this book seems to be to suggest inquiry and stimulate observation in order that we may endeavor, if possible, to discover something regarding our physical nature, as it exists here in the flesh; and as it exists hereafter, out of it. We see the book has already passed through several editions within a few months.

Review of the Market.

PRICES CURRENT IN NEW YORK, FEBRUARY 13, 1851.

ASHES, Pot,	℔	100 lbs.	$5.50	@	$5.62
Pearl,	"	do.	5.62	"	5.69
BALE ROPE,	"	lb.	9	"	11
BARK, Quercitron,	"	ton.	33.00	"	35.00
BEANS, White,	"	bushel.	75	"	1.50
BEESWAX, American, Yellow,	"	lb.	20	"	26
BOLT ROPE,	"	"	10	"	11
BONES, Ground,	"	bushel.	45	"	55
BRISTLES, American,	"	lb.	25	"	65
BUTTER, Table,	"	"	15	"	25
Shipping,	"	"	9	"	15
CANDLES, Mould, Tallow,	"	"	10	"	13
Sperm,	"	"	25	"	50
Stearine,	"	"	25	"	30
CHEESE,	"	"	5	"	10
COAL, Anthracite,	2,000	lbs.	6.50	"	7.00
CORDAGE, American,	"	lb.	11	"	13
COTTON,	"	"	12	"	16
COTTON BAGGING, Am. hemp,	"	yard.	15	"	16
FEATHERS,	"	lb.	27	"	40
FLAX, American,	"	"	8	"	9
FLOUR, Sour,	"	bbl.	3.62	"	4.12
Ordinary,	"	"	4.18	"	5.00
Fancy,	"	"	5.25	"	6.75
Buckwheat,	"	"	—	"	—
Rye,	"	"	3.87	"	4.00
GRAIN—Wheat, Western,	"	bushel.	1.00	"	1.20
" Red and Mixed,	"	"	90	"	1.10
Rye,	"	"	75	"	80
Corn, Northern,	"	"	69	"	74
" Southern,	"	"	68	"	72
Barley,	"	"	95	"	1.00
Oats,	"	"	48	"	53
GUANO, Peruvian,	2,000	lbs.	47.50	"	50.00
Patagonian,	"	do.	—	"	40.00
HAY, in Bales,	"	100 lbs.	70	"	75
HEMP, Russia, Clean,	"	ton.	220.00	"	225.00
American, Water-rotted,	"	"	160.00	"	200.00
" Dew-rotted,	"	"	140.00	"	175.00
HIDES, Southern, Dry,	"	"	10	"	11½
HOPS,	"	lb.	6	"	35
HORNS,	"	100.	2.00	"	10.00
LEAD, Pig,	"	100 lbs.	4.95	"	5.00
Pipes for Pumps, &c.,	"	lb.	5	"	7
LARD,	"	lb.	7	"	8½
MEAL, Corn,	"	bbl.	3.00	"	3.37
MOLASSES, New-Orleans,	"	gallon.	29	"	31
MUSTARD, American,	"	lb.	7	"	10
NAVAL STORES—Tar,	"	bbl.	1.75	"	2.00
Pitch,	"	"	1.25	"	1.75
Rosin,	"	"	1.25	"	1.40
Turpentine,	"	"	2.44	"	2.87
Spirits of Turpentine,	"	gallon.	36	"	38
OIL, Linseed, American,	"	"	90	"	95
Castor,	"	"	1.05	"	1.15
Lard,	"	"	65	"	75
OIL CAKE,	"	100 lbs.	1.25	"	1.50
PEAS, Field,	"	bushel.	75	"	1.50
Black-eyed,	"	2 "	1.75	"	2.20
PLASTER OF PARIS,	"	ton.	2.00	"	2.75
Ground, in Barrels of	300	lbs.	1.12	"	1.25
PROVISIONS—Beef, Mess,	℔	bbl.	8.00	"	11.00
" Prime,	"	"	4.00	"	6.00
" Smoked,	"	lb.	6	"	12
" Rounds, in Pickle	"	"	4	"	6
Pork, Mess,	℔	bbl.	10.00	"	12.50
" Prime,	"	"	6.50	"	9.50
Bacon Sides, Smoked,	"	"	3	"	4½
" in Pickle,	"	"	3	"	4
Hams, Smoked,	"	"	5	"	9
" Pickled,	"	"	4	"	7
Shoulders, Smoked,	"	"	4	"	6
" Pickled,	"	"	3	"	5
RICE,	"	100 lbs.	3.00	"	3.56
SALT,	"	sack.	1.00	"	1.60
" Common,	"	bushel.	20	"	35
SEEDS—Clover,	"	lb.	6½	"	9
Timothy,	"	bushel.	2.00	"	4.00
Flax, Rough,	"	"	1.80	"	1.85
SODA, Ash, (80 per cent. soda.)	"	lb.	3	"	—
Sulphate Soda, Ground,	"	"	1	"	—
SUGAR, New-Orleans,	"	"	5	"	8
SUMACH, American,	"	ton.	35.00	"	37.00
TALLOW,	"	lb.	7	"	8
TOBACCO,	"	"	4	"	15
Eastern, Seed-leaf,	"	"	15	"	20
Florida Wrappers,	"	"	15	"	60
WHISKEY, American,	"	gallon.	25	"	26
WOOLS, Saxony,	"	lb.	50	"	60
Merino,	"	"	40	"	50
Grade Merino,	"	"	30	"	40
Common,	"	"	20	"	30

REMARKS.—Prices steady, with a downward tendency in flour and cotton.

The Weather still continues mild, with the exception of a few cold days. We have had scarcely three inches of snow fall thus far during the winter.

TO CORRESPONDENTS.—Communications have been received from Levi Bartlett, Coke, J. O., E. Emmons, A. G. Mathews, B. Webster, W. B. W. Gray, T. S. G., Visitor, F. A. Hallock, Octogenaro, T. W. Harris, Augustus, A Member of an Agricultural Society, Joseph Togno, J. R. Strale, H. N. W. and on the Study of Entomology, no signature.

VILLAGE LECTURES.—When we commenced the publication of these lectures, we gave full credit to the source from whence we took them, the Agricultural Gazette, published in London, England. We directed credit to be given in addition to this, regularly, in every number of our paper; but, much to our regret it was accidentally omitted in January and February.

GREAT SALE OF SHORTHORNS.—We beg to call attention to Mr. Vail's advertisement of shorthorn cattle, which is to take place on the 26th of June next. Mr. V. has a good herd; and as all the cows are in calf to his Bates bulls, or on crosses of the same, this adds much to their value. Of the superiority of Mr. Bates' stock, we have often spoken in the Agriculturist.

AGRICTLTURAL WAREHOUSE AND Seed Store, Quincy Hall, over the Market, Boston.—The proprietors having recently enlarged their warehouse, and increased their works at Worcester, would respectfully invite the attention of planters and dealers in agricultural and horticultural implements, garden and field seeds, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

Of plows, we have the greatest variety of kinds and sizes. Improved Sod Plows for flat furrows; improved Scotch do. for lapped furrows; improved stubble do., which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth, Self-sharpening, Hill-side, Subsoil, Double-mould, Corn, Cotton, Sugar and Rice Plows. Cylinder Hay Cutters, Smith's Patent Lever Gate and others. Seed Sowers of various sizes and prices, Patent Cornshellers, with and without Separators, Bachelder's Patent Corn Planters, improved, Fanning Mills of various sizes, Horse Powers, Threshing Machines, Thermometer Churns, Robbins' Patent Centrifugal do., Cylinder do., Dash do., Corn and Cob Crushers, Corn Planters, together with almost every article wanted on the plantation, farm, or garden. Illustrated Catalogues sent gratis on application, post paid.

RUGGLES, NOURSE, MASON & Co.,
m 2t Boston and Worcester, Mass.

FRUIT TREES FOR SALE.—The subscriber offers for sale this spring, a fine, large, handsome stock of trees, among which are 30,000 Apple Trees from 7 to 12 feet high, at $12 per 100; a large stock of fine Baldwins, Rhode-Island Greenings, and Newton Pippins; 6,000 large and well-formed Cherry Trees, 25 cents each; a large stock of Peach, Plum, Pear, Apricot, and Nectarine Trees, at the lowest nursery prices; 3,000 Frost-Gage Trees, from 18 to 30 cents each; 10,000 Isabella Grape Vines, from two to five years old, at from 6 to 14 cents each, among which are fine lot of transplanted vines; 2,000 Orange or Apple-quince Bushes from 3 to 5 feet high, at from 12 to 15 cents each.

Particular care paid in taking up and packing trees. Catalogues sent to all applicants.

mar 1t CHARLES DUROIS, Fishkill Landing, N. Y.

FARMERS' AND PLANTERS' TOOL Chests. We have fitted up a number of tool chests especially for the use of farms and plantations, variously assorted with suitable tools, and at prices ranging from $20 to $100.

Chest No. 1 contains a Hand Saw, set of Planes, Hand Axe, Nail Hammer, Hatchet, Drawing Knife, Steel Square, Trying do., Oil Stone, Compasses, Chalk Line, four Framing Chisels, four Firmer do., and four Augers. $20.

No. 2 contains, in addition to the above, a Back Saw, Compass Saw, and Carpenter's Adz. $26.

No. 3 contains, in addition, a Broad Axe, Mallet, Spoke Shave, Gauge, Saw Set, Brad Awls, and Nail Punches. $31.

No. 4 contains, also, a brace of Bits, Bevel, Rabbet Planes, Pannel Gauge, four Files, and five additional Augers and Chisels. $40.

No. 5, a large Jointer, two Rabbet Planes, two Bed do., two Match do., Plow and Bits, Hand Gauge, and Spirit Level, are added. $54,

No. 6 has an extra fine brace of Bits, three Bed, and one additional Rabbet Planes, Gages, Files, &c., $62.

No. 7, one Pannel Square, one pair of Match Planes, one dozen heavy Firmer Chisels, Slitting Gauge, Trying Square, Fillister, and Carpenter's Rule are added, $70.

No. 8, Gutter Plane, Sash do., Circular do., two Dado Planes, Compasses, Adz, and Tape Line are added, $80.

To these may be added any other tools required, such as Pinchers, Pliers, Drills, Hand Vice, Punches, Rivets, Soldering Tools, suitable for reparing harnesses; and, in fact, almost any kind required upon the farm or plantation, at a reasonable addition to the price of any chest ordered.

A. B. ALLEN & Co., 189 and 191 Water st

THE AMERICAN LIVE-STOCK INSURance Company, Vincennes, Indiana.
Charter Unlimited. Granted January 2d, 1850.

CAPITAL $50,000!

For the Insurance of Horses, Mules, Prize Bulls, Sheep, and Cattle, of every description, against the combined risks of Fire, Water, Accidents, and Disease.

Losses paid in 30 days after proof of death.

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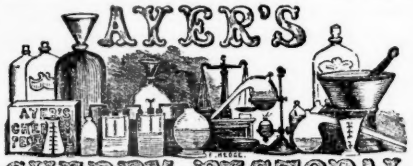

CHERRY PECTORAL

For the Cure of

COUGHS, COLDS, HOARSENESS, BRONCHITIS, CROUP, ASTHMA, WHOOPING COUGH AND CONSUMPTION.

Among the numerous discoveries science has made in this generation to facilitate the business of life, increase its enjoyment, and even prolong the term of human existence, none can be named of more real value to mankind, than this contribution of chemistry to the healing art. A vast trial of its virtues throughout this broad country has proved beyond a doubt, that no medicine nor combination of medicines yet known, can so surely control and cure the numerous varieties of pulmonary disease which have hitherto swept from our midst thousands and thousands every year. Indeed, there is now abundant reason to believe a remedy has at length been found which can be relied on to cure the most dangerous affections of the lungs. Our space here will not permit us to publish any proportion of the cures affected by its use, but we would present the following opinions of eminent men, and refer further inquiry to the circular, which the agent below named will always be pleased to furnish free, wherein are full particulars, and indisputable proof of these facts.

From the President of Amherst College, the celebrated Professor Hitchcock.—"James C. Ayer, Sir: I have used your Cherry Pectoral in my own case of deep-seated bronchitis, and am satisfied from its chemical constitution, that it is an admirable compound for the relief of laryngial and bronchial difficulties. If my opinion as to its superior character be of any service, you are at liberty to use it as you think proper.

EDWARD HITCHCOCK, LL. D.

From the widely celebrated Professor Stillman, M. D., LL. D., Professor of Chemistry, Mineralogy, &c., Yale College, Member of the Lit. Hist. Med. Phil. and Scientific Societies of America and Europe.—"I deem the Cherry Pectoral an admirable composition from some of the best articles in the Materia Medica, and a very effective remedy for the class of diseases it is intended to cure.

New Haven, Ct., Nov. 1st., 1849.

From one of the first Physicians in Maine.—"Dr. J. C. Ayer, Lowell, Dear Sir: I am now constantly using your Cherry Pectoral in my practice, and prefer it to any other medicine for pulmonary complaints. From observation of many severe cases, I am convinced it will cure coughs, colds, and diseases of the lungs, that have put to defiance all other remedies. I invariably recommend its use in cases of consumption, and consider it much the best remedy known for that disease.

Respectfully yours, I. S. CUSHMAN, M. D.

Saco, Me., April 26th., 1849.

Prepared and sold by James C. Ayer, Practical Chemist, Lowell, Mass. Also by druggists everywhere.

FRUIT TREES FOR SALE.—50,000 Peach Trees, all of the best market varieties, at the following prices:—By the single hundred $5. One thousand, $45. And ten thousand for $400. Also, 40,000 Apple Trees of the best market varieties, and of large size. By the single hundred, $12,50, or one thousand for $110. Matts and packing, $1 per hundred for Peach, and $2 for Apple Trees. Catalogues will be forwarded to all applicants.

ISAAC PULLEN,

jan 4t Hightstown, Mercer Co., New Jersey.

GREAT SALE OF DAIRY STOCK.—The subscriber will offer for sale, without reserve, at Public Auction, on Tuesday the 25th day of March, 1851, at 12 o'clock, on the farm on which he resides at Morrisania, Westchester county, N. Y., upwards of 100 head of Cows and Heifers. About 50 head are Native and Amsterdam Dutch Cows, selected by the subscriber with reference to milking qualities. The remainder, about 50 head, are grades, one half, three quarters, and seven eighths blooded. Heifers from one to five years old, bred by the subscriber out of the very best of cows, and got by the celebrated imported shorthorned bull Marcus, and so far as they have come to maturity, they appear to combine with most faultless symmetry, nearly every point indicative of perfection in a dairy cow. Taking the whole dairy together, it is, perhaps, the best selected in the United States. The cows, with a few exceptions, are all young and in calf by the fine bull Amsterdam. The many premiums that I have been awarded by the State Agricultural Society and the American Institute give evidence of my success as a breeder. I will also sell my shorthorned cow that took the first Premium at the American Institute Fair in October last, two two-year-old heifers, and one yearling, all thorough bred. Two yoke of very superior working cattle, with several fine horses, one boar of the Russian grass breed, one imported, improved Berkshire sow and pigs, one Suffolk sow and Pigs. The number of hogs, in all, will be from 50 to 60, and some of them as fine as can be produced. All the farming utensils, also those of the dairy, which are numerous. A catalogue and description of each animal will be given on the day of sale. Stock purchased to be sent to a distance will be delivered by the subscriber, on ship, canal, or railroad cars, in the city of New York, free of risk and expense to the purchaser.

Morrisania is nine miles from New York by Harlem Railroad.

f 2t* THOMAS BELL.

FOR SALE.—The Dwelling House and about seven acres of ground adjoining, situated in the centre of Northampton, Mass., formerly occupied by Thomas Napier, Esq. The house is in complete repair, with all the modern improvements. It commands a beautiful view of the Connecticut Valley, and is within half a mile of the railroad. For particulars, inquire of

R. L. ALLEN, 189 Water st. N. Y., or

f S. S. HINCKLEY, Albion Hotel, Boston.

ENDLESS-CHAIN PUMPS, OR WATER Elevators. These highly approved machines operate upon the same principle as those used for grain. The elevator is made a part of an endless chain, that works over an iron wheel, and down into the water, around a pulley into the tube, through which a constant stream is made to flow into the pail, by simply turning the crank, attached to the wheel at the top, which any light hand can do with great ease. They are made of several sizes, and can be fitted up for any depth well, or cistern required.

A New Use for Chain Pumps.—One of these of large bore, is the most efficient machine ever used for emptying the vaults of privies. A. B. ALLEN & Co.

EAGLE PLOW.—No. 28.—The following extract from the letter of a gentleman who purchased one of these plows, fully explains its character. "In answer to your inquiry how I like the great breaking plow, I have to say it entirely exceeds my expectations, and even your own recommendation, which I then thought quite extravagant. I put on four stout yoke of oxen, and drove into the thickest patch of scrub oak roots upon my farm; not without some misgivings, that I should break the plow instead of the roots; but I have now turned over twenty acres as completely as though it had been nothing but stubble, and the plow is this day better than it was when it came from your store. I think it the cheapest and best plow for such heavy work ever invented."

These plows are for sale at our Agricultural Warehouse, No's. 189 and 191 Water st., New York. Price, plain, $18—full rigged, with wheel, draft rod, and cutter, $20. A. B. ALLEN & Co.

GARDEN AND FIELD SEEDS FOR 1851. We are getting in, not only our usual supply, but a larger stock than ever, of all kinds of seeds required, either for field or garden culture, fresh and free from noxious weeds, &c., which are offered at wholesale or retail. Orders for trees and shrubbery executed as usual.

f A. B. ALLEN & Co. 189 and 191 Water st. N. Y.

MINER'S BEE HIVE.—This beautiful and valuable Hive, may be had of the subscribers, and sent to any distance, for $5, including a Right to make the same; with full directions, so simple that any joiner can make it for only $2. This hive is positively the best that has ever been sold in the United States.

dtf A. B. ALLEN & Co., 191 Water st., N. Y.

HOLMES' TWO NEW SKYLIGHTS are now completed, with improved means for Daguerrotype making unsurpassed in the world, being capable of taking 100 to 150 pictures a day. Holmes was awarded a medal at the Fair, and intends to merit success and achieve honors from friends and the lovers of charming pictures. No. 289 Broadway, Late, Harrison and Holmes. feb 4t*

NEW-YORK
AGRICULTURAL WAREHOUSE AND SEED STORE,

A. B. ALLEN & CO. 189 AND 191 WATER STREET, NEW YORK.

THE SUBSCRIBERS *keep constantly on hand, and offer for sale the largest and most complete assortment of Agricultural and Horticultural Implements, and Field and Garden Seeds in the United States, among which may be found the following :–*

PLOWS, of a great variety of styles, sizes, and patterns, made in the most durable manner, and with the latest improvements, suited to all kinds of soils, crops, and modes of cultivation, embracing the celebrated Eagle, Miner & Horton, and Steel-Pointed, Self-Sharpening Plows; Lock-Coulter Plows, expressly for breaking up and working in new land; Side-Hill, Sub-Soil, Double-Mold and Three-Furrow Plows. Also, a large variety of the most approved southern plows, particularly adapted to cotton, sugar and rice cultivation.

MILK PANS.—Glass and Enamelled Iron Milk Pans, very desirable articles.

CHURNS.—Thermometer, Atmospheric, Kendall's, and other kinds.

HAND CULTIVATORS and Hand Plows are very useful implements in garden culture.

BATCHELDER'S CORN PLANTER, a very desirable and efficient machine. Price $14.

SCYTHES.—Grass, Grain, Bush, and Lawn Scythes of the best kinds.

RAKES.—A large assortment Steel, Iron, and Wooden-headed Garden Rakes, and Lawn and Hay Rakes.

HORSE HAY RAKES.—We shall soon be supplied with new and highly-improved patterns.

REAPING AND MOWING MACHINES.—These have been fully tested, and embrace many late improvements, and we can highly recommend them.

MANURE FORKS, SHOVELS, SPADES, &c.—Our assortment we intend shall be unequalled either for variety or superior quality.

GRAIN DRILLS, a machine which every large grain planter should possess. We have them of the best patterns, embracing most valuable improvements.

GARDEN AND FIELD ROLLERS, made of any desired number of iron sections, one foot in width, and 20 and 28 inches diameter, for either hand or horse, very superior and exceedingly useful implements.

POTATO OR SMALL DOUBLE-MOLD Plow, the best implement made for hilling or digging potatoes, throwing them perfectly out of the hill. By extra molds, which can be attached, it makes a superior double mold-board plow. Price $6.50 to $8.

SEED SOWERS, to be worked either by horse or hand, of various styles. They plant seeds of all sizes at any required distance, opening the drills and covering the seed at one operation, and work admirably. Price of most approved, $14.

GARDEN AND FIRE ENGINES, very useful machines, arranged on wheels, for watering gardens or walks, and great protection from fire. They will throw a strong stream 40 feet high, are easily worked and not liable to get out of order. Also, small Garden Pumps and Syringes of various styles.

HARROWS.—The most approved is Gedde's Double Triangular-Folding Harrow, which readily adapts itself to any uneveness of the soil, and with the same labor does the work better, and more thoroughly, than any other kind. Also, the common Square Harrow, and Double-Square or Scotch Harrow, which can be used either as a one or two-horse harrow. Also various other kinds.

CULTIVATORS.—Rodgers' Self-Sharpening Steel-Toothed is among the best; also a great variety of wrought and cast-tooth cultivators, both with and without wheels. The Universal Cultivator has an iron frame, arranged for different kinds of teeth among which are two molds, that, by transferring from one side to the other, the earth may be thrown either to or from the plants, as may be desired. All the different styles are made to expand or contract, to conform to the width of the rows.

TIMOTHY SEED, fresh reaped, a choice article.

POUDRETTE, a good article at manufacturers' prices.

MATTOCKS, Picks, Grubs, of styles adapted to all kinds of work.

GRINDSTONES of superior grit and quality, hung on improved friction rollers, to work either by foot or hand.

SMUT MACHINES, Pilkington's, the most approved for general use. Price $60.

WAGONS AND CARTS made to order of any desired pattern, in the best manner.

GUANO.—A full supply of genuine Peruvian and Patagonian Guano.

BONE DUST, a very superior article, warranted perfectly pure.

GROUND PLASTER, OR GYPSUM, a pure article, put up in barrels, at low prices.

WATER RAMS, Suction, Force, and Endless-Chain Pumps, Leather, Gutta-Percha, India-Rubber Hose, Lead Pipe, &c.

HAY AND COTTON PRESSES.—Bullock's Progressive Power Presses, combining improvements which make them by far the best in use.

HORTICULTURAL TOOLS, a most complete assortment, consisting of Pruning Saws and Chisels, Pruning and Budding Knives, Pruning, Garden, Hedge, Flower and Vine Shears and Scissors, Garden Trowels, Forks, Hooks, &c.

HORTICULTURAL TOOL CHEST, containing a good assortment of implements, most of which screw to the same handle, a very handy and convenient article.

GRAIN MILLS, Corn and Cob Crushers, Fanning Mills, Corn Shellers, and Straw Cutters, a very large assortment of the best and latest improved kinds.

FIELD AND GARDEN SEEDS of every variety required in the United States, fresh, and of the choicest quality.

FOREIGN SEEDS, of superior quality and late importation.

GRASS SEEDS.—Ray Grass, Lucern, and White Dutch Clover.

GARDEN SEEDS.—A large stock selected with care, expressly for the American Market.

TOBACCO, OIL AND SEED PRESSES, made on the above principle, to take the place of the Hydraulic press. These are much more efficient than the latter; at the same time they are more economical. Their superior merits have been recently satisfactorily tested by several large oil manufacturers in this vicinity, where the machines may by seen in operation

MACHINE SHOP AND FOUNDRY.—Connected with our Agricultural Warehouse and Seed Store, we have a large Machine Shop, with Steam Power and Foundry, where any Implement and Machine can be made to order, which is required for the Farm, Plantation, Garden, &c.

HORSE POWERS of all kinds, guaranteed the best in the United States. These embrace,

1st. The Chain Power, of our own manufacture, both single and double-geared, for one and two horses, which has never been equalled for lightness in running, strength, durability and economy. They are universally approved wherever they have been tried.

2d. The Bogardus Power, for one to four horses. These are compact and wholly of iron, and adapted to all kinds of work.

3d. Eddy's Circular Wrought-Iron Power, large cog wheels, for to six horses, a new and favorite power.

4th. Trimble's Iron-Sweep Power, for one to four horses.

5th. Warren's Iron-Sweep Power, for one or two horses.

A. B. ALLEN & CO.